

JOURNAL of FARM ECONOMICS

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CONTENTS

Changes in the Aggregate Volume and Distribution of Purchasing Power During Recovery. <i>O. C. Stine</i>	211
Monetary Policy and Prices. <i>G. F. Warren and F. A. Pearson</i>	219
Discussion. <i>A. W. Marget</i>	234
Some Results of Governmental Attempts to Foster Recovery. <i>Willford I. King</i> ..	240
Discussion. <i>Arthur Robert Burns</i>	249
The Farm Mortgage Credit Situation in the United States. <i>E. C. Young</i>	260
Discussion. <i>S. F. Westbrook</i>	269
The Short Term Farm Credit Situation in the United States. <i>E. C. Johnson</i>	277
Discussion. <i>Wood Netherland</i>	285
Farm Debt Adjustments. <i>H. C. M. Case</i>	290
Discussion. <i>William Allen</i>	300
Discussion. <i>Paul Bestor</i>	302
The Processing Taxes and Some Problems Raised by Them. <i>M. Slade Kendrick</i> ..	307
Discussion. <i>Lawrence Myers</i>	317
The Incidence of the AAA Processing Tax on Hogs. <i>Geoffrey Shepherd</i>	321
Discussion. <i>J. Roy Blough</i>	334
The Citrus Marketing Agreements. <i>A. W. McKay</i>	340
Discussion. <i>C. V. Noble</i>	347
Marketing Agreements for Vegetables and Fruits Other than Citrus Fruits. <i>H. R. Wellman</i>	349
Marketing Agreements for Dairy Products. <i>A. H. Lauterbach</i>	357
Discussion. <i>W. A. Wentworth</i>	362
The Regulation of the Marketing of Fruits and Other Natural Products in Canada. <i>W. C. Hopper</i>	368
Notes:	
Local Government in a Rural Area. <i>Clifton J. Bradley</i>	375
Factors Affecting Farm Real Estate Values in the United States. <i>F. L. Thomson</i> ..	379
Part-time Farming in the Twin City Area of Minnesota. <i>L. F. Garey and Wilbur Baldwin</i>	383
The Stopped Price Schedule for Fluid Milk. <i>A. M. McIntire</i>	386
Effect of Tax Rates on Land Values. <i>Wm. L. Covert</i>	391
Books Received	393
Book Reviews	394
News Items	406

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JOURNAL of FARM ECONOMICS

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No. 2

CHANGES IN THE AGGREGATE VOLUME AND DISTRIBUTION OF PURCHASING POWER DURING RECOVERY¹

O. C. STINE

BUREAU OF AGRICULTURAL ECONOMICS

Agricultural Income and Purchasing Power

The gross income from agriculture for the 1934 season² probably will be about \$7,200,000,000, compared with about \$6,300,000,000 for 1933 and \$5,300,000,000 for 1932, the low point of the depression. This is an increase of 36 percent in two years. Cash income will probably increase from \$4,370,000,000 to about \$6,200,000,000, an increase of \$1,830,000,000 or 42 percent. Rental and benefit payments made material contributions to this increase, amounting to \$271,000,000 in 1933 and about \$589,000,000 in 1934. The actual position of the farm operator has been improved more than indicated by these figures. A three-year period, 1930-1932, in which income was insufficient to pay all expenses and farm hand wages to the operator, has now been followed by two years of income sufficient to return something to the operator for his management and capital. The income to farm operators from 1934 production, for labor, capital and management after paying expenses, probably would purchase about twice the quantity of the goods that could be bought by that for 1932.

The above statement is a brief summary of the changes in agricultural income and purchasing power since 1932. The estimate for 1934 is preliminary, being based primarily upon production and marketings through November 1934. The cash income from the marketings of farm products and benefit payments in the first eleven months of 1934 exceeded the income for the corresponding months of 1933 by one billion dollars. The gross income from the

¹ This paper was read at a joint meeting of the American Farm Economic Association and the American Statistical Association, Chicago, December 28, 1934.

² The season here used is the calendar year for livestock and the crop marketing period of each year's crop production. See *Crops and Markets*, Aug. 1934, pp. 314-335.

agricultural production of 1933 has been estimated at \$6,256,000,000. This includes an estimate of a little less than \$1,000,000,000 as the value of the farm products consumed on the farm. Assuming no significant change in the farm value of the products consumed on the farm, it seems likely that the gross income for 1934 will amount to about \$7,200,000,000. (See Table 1.)

1. A PRELIMINARY ESTIMATE OF GROSS FARM INCOME FOR 1934 IN COMPARISON WITH 1932 AND 1933, BY GROUPS OF COMMODITIES*

Source of income	1932	1933	1934
	Million dollars	Million dollars	Million dollars
Crops:			
Grains.....	450	506	542
Cotton and cottonseed.....	464	684	711
Fruits and nuts.....	325	376	402
Vegetables.....	609	747	702
Sugar crops.....	69	81	60
Tobacco.....	107	179	260
All other.....	264	301	330
Total crops.....	2,288	2,874	3,007
Livestock and livestock products:			
Meat animals.....	1,123	1,155	1,329
Poultry and eggs.....	609	560	588
Dairy products.....	1,260	1,263	1,427
Wool.....	30	75	82
All other.....	21	27	31
Total livestock.....	3,043	3,080	3,457
Total crops and livestock.....	5,331	5,954	6,464
Rental and benefit payments:			
Cotton.....	...	167	118
Wheat.....	...	98	102
Tobacco.....	...	6	40
Corn—hog.....	...	...	306
Sugar.....	...	...	23
Total.....	...	271	589
Purchases of livestock.....	...	31	110
Grand total.....	5,331	6,256	7,163

Division of Statistical and Historical Research, Bureau of Agricultural Economics.

* The above estimates represent livestock production for market in the calendar year indicated and crop production for the season beginning with the harvest season, within the year; the rental and benefit payments are those made within the calendar year.

Between 1932 and 1933 the gross farm income increased about \$900,000,000, of which \$300,000,000 were paid by the Government as rental and benefit payments and for livestock. In this first year of recovery, crops contributed most of the gains. The income from crops increased about \$586,000,000, the greatest gain being from cotton which contributed \$220,000,000. Fruits and vegetables contributed about \$190,000,000 and tobacco over \$70,000,000. The contribution of the grain crops was rather slight, mainly on account of the short wheat crop of 1933. There was practically no increase in the income from livestock products. The increase in dollar income from crops was due primarily to the revaluation of the dollar, the normal reaction of the raw materials markets to a turn in the general price level and improvement in general

business conditions. Livestock prices did not turn up as quickly as the prices of crops because of the fact that the production of livestock was continuing to increase and the increase in the dollar purchasing power of urban consumers in the latter part of 1933 was not great enough to offset the effect of the great depression in the early part of 1932.

The gain in gross farm income between 1933 and 1934 will probably be about \$900,000,000, of which livestock including government purchases has contributed about \$450,000,000 and benefit payments about \$318,000,000. All crops made slight gains, but the total crop gain was only a little more than \$100,000,000, most of which was contributed by tobacco. In the case of many crops the advance in prices was barely more than sufficient to offset the reduction in volume for market.

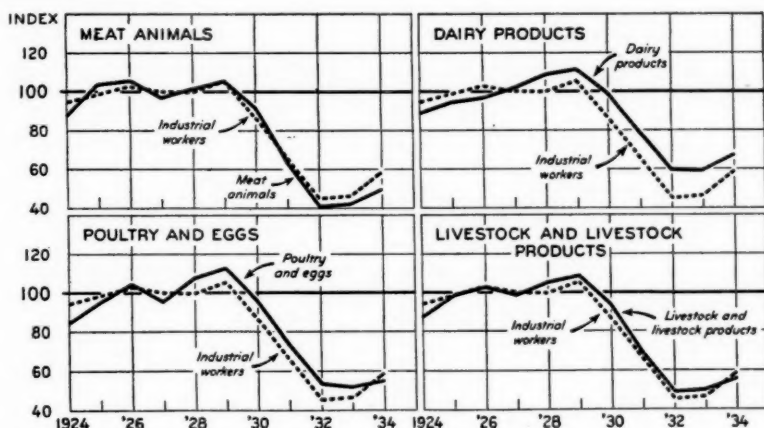


FIGURE 1. Indexes of income of industrial workers and cash income from livestock and livestock products, by groups, 1924 to date (1924-29 = 100).

The income from all classes of livestock products increased. The income from dairy production gained about \$165,000,000, meat animals added \$175,000,000, and increased government purchases have added about \$80,000,000 to the income of meat animal producers. The marketing gains from livestock production are primarily the result of maintaining business activity, and, consequently, of maintaining urban consumer purchasing power in 1934 materially above the average for 1933. (See Figure 1.)

Against this description of changes in income, it may be of interest to note the changes in volume of production and the changes in price. Crop production declined sharply between 1932 and 1934. (See Figure 2.) The production of 12 important crops

declined more than one-third in these 2 years. The greatest reductions were in grain crops which dropped about one-half, and in cotton which was reduced about one-fourth. The production of fruits and vegetables was well maintained in spite of the depres-

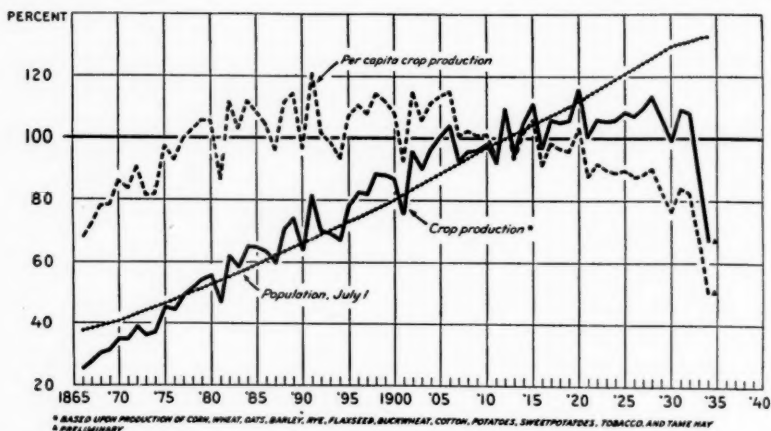


FIGURE 2. Crop productions, population, and per capita crop production, 1866 to date (1910-14 = 100).

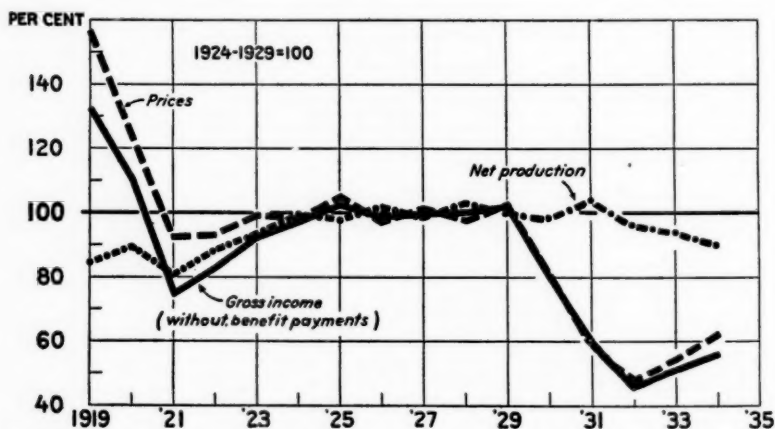


FIGURE 3. Indexes of net agricultural production, prices, and income, United States, 1919 to date.

sion. The production of meat animals increased and dairy production continued on a high level. The production of meat animals increased nearly 8 percent between 1932 and 1933, and then added 12 percent more in 1934. Dairy production declined only slightly from 1932 to 1934.³ It should be observed, of course, that the

³ See "Net Agricultural Production in 1934" by C. M. Purves, in *The Agricultural Situation*, Dec. 1, 1934.

increased slaughter of meat animals registered here represents in part a liquidation of producing stock. Thus the volume of agricultural production declined only about 6 percent but prices rose. (See Figure 3.)

The prices of farm products rose from the low level of 65 percent of pre-war in 1932 to 101 in November 1934. The first great gain in the prices of many of the important crops in 1933 was the result of prospects for smaller crops, the depreciation of the dollar in international exchange, and an improvement in the general economic situation. Further price gains were made in 1934 on account of reduced crops and increases in the dollar purchasing power of consumers. In January 1934 farm prices averaged only 77 percent of pre-war, and reached 103, a gain of 26 points, by September. The average price of meat animals in 1933 was lower than in 1932 and in January of this year was lower than the average for the previous year; but by September the price of meat animals had increased to 82 percent of pre-war compared with 55 in January. Dairy products gained from 84 in January to 105 in November. Summing up these price changes in terms of calendar years, the prices of agricultural products increased from 65 percent of pre-war to 70 percent between 1932 and 1933, and advanced to an average of about 90 percent in 1934, a gain of 38 percent. The net result of a decline of 6 percent in net production and this rise in prices is a gain of about 21 percent in the gross income from production between 1932 and 1934. Adding benefit payments raises the advance to 35 percent over the gross income of 1932.

Volume of Farm Purchasing Power

The subject calls for an estimate of changes in the aggregate volume of purchasing power as well as changes in income during recovery. In estimating the ability of farmers to buy commodities and services, the volume of cash income is more significant than gross income. Tentatively we estimate the cash income for 1934 at \$6,200,000,000, compared with \$5,300,000,000 for 1933 and \$4,370,000,000 for 1932. This would be the largest volume of cash income realized since 1930. Naturally the significance of these figures also depends upon how the money is spent and what changes have taken place in the prices of commodities and in the costs of services which farmers usually purchase or employ.

Fortunately for the farm operator, in a period of recovery the prices of many commodities and charges for services as a rule do not advance as rapidly as the prices of farm products. Con-

sequently, income is likely to advance more rapidly than costs, and that has been the fact in the past two years. Costs that are ordinarily considered as fixed have declined under the pressure of the years of general depression, and have continued to decline after the upward turn in farm income. (See Figure 4.) Taxes on farm property have been reduced so that the amount payable upon real estate and personal farm property probably has declined from \$476,000,000 in 1932 to about \$400,000,000 in 1934, and interest payable upon mortgage indebtedness and bank notes from \$596,000,000 to about \$500,000,000. In response to the gen-

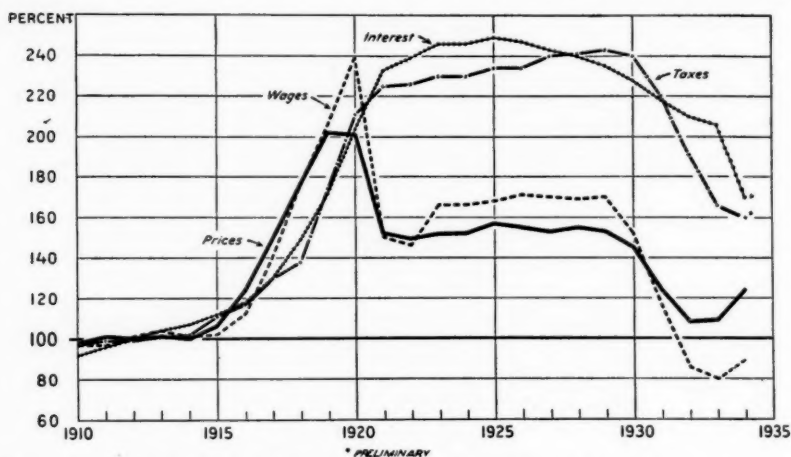


FIGURE 4. Prices paid by farmers, wages paid to hired labor, interest payable on mortgage indebtedness, and taxes payable on farm real estate, 1910 to date (1910-14 = 100).

eral improvement, farm wages and operating expenses increased but not so rapidly as farm income. Wages to hired labor continued to decline from 1932 to 1933, turned upward in 1934 but in that year amounted to only about \$378,000,000 as compared with \$380,000,000 in 1932. Operating expenditures have increased from \$1,455,000,000 to about \$1,675,000,000. Adding these items together and subtracting them from cash income leaves a balance of about \$3,250,000,000 for 1934, compared with \$1,463,000,000 in 1932. Thus cash available to the farmer for living, after the payment of operating costs, interest and taxes, would be more than doubled between 1932 and 1934.

The cost of living on the farm increased to some extent so that the power to purchase commodities for living did not increase as much as the dollar income available for living. An index of prices of commodities farmers usually buy for living on the farm

increased from 108 to 122 percent of pre-war in these two years. Deflating the estimates of cash income available for operators' labor, capital, and management, we find that for 1934 equivalent to about \$2,650,000,000 in purchasing commodities for living on the basis of pre-war prices, compared with \$1,356,000,000 for 1932, an increase of 95 percent. Since the prices of commodities farmers purchase for use in production changed about to the same extent as the prices of those used for living, the real purchasing power of the farmer for commodities he buys doubled in the two years provided he chose to spend these net gains in the current purchase of commodities. Undoubtedly farmers used these gains in part to reduce accumulated debts or to make up deferred payments.

The relatively great improvement in purchasing power in the past two years is from a very low level, and represents in part forced readjustments in expenditures. The interest bearing indebtedness of farmers has been reduced by default and by scaling down the debts as well as by repayment. Taxes on farm property have been scaled down as a matter of necessity. The maintenance of rural community services depends upon tax payments, and in many cases these services have been adjusted toward what the farmer could pay, both by reduction in salaries and reductions in services. These readjustments have reacted upon rural communities engaged mostly in servicing the farmers and reduced the purchasing power of all such communities. In some measure these readjustments tend to offset gains in the net dollar income of farmers so that the total commodity purchasing power of rural communities has not increased so much as the net gains to farmers.

If the taxes levied and interest payments due were paid, the incomes to farm operators in 1930, 1931 and 1932 were not sufficient to yield them wages equivalent to the low wages paid to hired hands in those years, but in the past two years they have earned the equivalent of farm hands' wages for themselves and the working members of their families and a small margin of about 2 to 3 percent for return on the greatly reduced value of farm property.

In this connection it should not be overlooked that the income of the past year has been in part realized from a sale of productive livestock. The value of farm operators' capital has been reduced about 40 percent since 1929. This reduction has been due to the fall in prices. Undoubtedly machinery and equipment depreciated but livestock numbers increased. The net gain of

1934 has been spent in part in replacing and restoring farm machinery and equipment.

The significance of the improvement in income and changes in expenditures may be more clearly seen by noting the changes that took place between 1932 and 1933 as indicated by returns from individual farmers.⁴ Such data are not yet available for 1934. In the years 1932 and 1933 more than 6,000 farmers reporting to the Department of Agriculture showed the following interesting changes: The receipts from the sales of farm products increased from \$1,014 per farm to \$1,222; their taxes decreased from an average of \$149 to \$127, and interest payments declined from \$173 to \$160; the average cash outlay for hired labor per farm increased from \$185 to \$220; expenditures for machinery and tools increased from \$34 to \$44; and the amount spent on farm improvements increased from \$29 to \$40. These farms are larger and better than the average of all the farms of the United States, but they probably represent correctly the tendencies of farm operators in general with respect to the distribution of their income as it increases.

The cash available for maintenance of machinery and equipment and to keep up the condition of the farm is still probably far short of what would be required to keep the farm plant in good order. In 1929 the cash receipts of the reporting farms averaged \$2,669 per farm, of which they spent \$159 on machinery and tools and \$125 on farm improvements. The differences in the average expenditures for improvements and for machinery between 1929 and 1932 or 1933 indicate some of the most significant adjustments made to the depression. From this it may also be observed that recovery on the farm is likely to be registered most quickly and most strikingly in those industries supplying goods and services which were sacrificed most in the depression.

The position of the farmer has also been improved by the refinancing of debts and the establishment of federal credit agencies for providing loans to farmers on the basis of liberal appraisals and comparatively low rates. The refinancing of debts and the reduction of interest charges has contributed toward restoring the farmers' credit and thus increased their current purchasing power, as rapidly perhaps, if not more rapidly than the actual current increase in income. This improvement in the position of the farmer has been a basic factor in the general improvement in the financial and business conditions of rural communities throughout the United States.

⁴ *Crops and Markets*, July 1934, pp. 262-263

MONETARY POLICY AND PRICES¹

G. F. WARREN AND F. A. PEARSON

CORNELL UNIVERSITY

The Value of Gold

For many years before the War, the value of gold relative to the value of other commodities was fairly stable when world monetary supplies of gold increased at the same rate as world production of other commodities. From 1914 to 1928, world monetary stocks of gold increased 38 per cent and world production of other commodities increased 38 per cent. Had it not been for the reduced demand for gold, pre-war prices would have been expected, but prices were 40 to 50 per cent above pre-war. On many occasions during the past sixteen years, the writers have called attention to the expectation that prices would fall to the pre-war level or lower, and to the further expectation that the crash would cause an abnormal demand for gold.

Many economists thought that gold had permanently lost value and that prices would not fall. The following statement made by Professor Kemmerer in 1922 expressed the opinion of many economists: "It is my guess that while the bulk of the deflation is over in this country, we may expect in the next few years a decline in the general price level from the present index number of 149 to somewhere in the neighborhood of 140 or 135."²

Evidently Professor Kemmerer continues to hold this point of view for in a book published this year he states: "If the assumption previously made in this book is sound, that the present high value of gold is but temporary and that, after the world depression has passed and the world-wide clamor for gold for hoarding purposes in the nervous stress and strain of critical years has subsided, the value of gold will depreciate to approximately what it was during the years 1921 to 1929, or about that of the year 1926, . . ."³

When 1910-1914 is 100, the United States Bureau of Labor index number of wholesale prices for all commodities in 1926 was 146. In September 1934 it was 67 in gold. Index numbers for eleven countries averaged 70 (table 3). When pre-war is 100, the highest index for any of the eleven countries was 77. Index

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, Ill., December 26, 1934.

² Kemmerer, E. W.: *The Present Economic Situation and the Farmer*, Official Proceedings of the Seventh Annual State Agricultural Convention, Trenton, N. J., p. 78, February, 1922.

³ Kemmerer, E. W.: *Kemmerer on Money*, 191-192, 1934.

numbers for raw materials in five countries averaged 63, which was the same as the Bureau of Labor index for raw materials. The highest index for any country for raw materials was 69. Professor Kemmerer's forecast means that he expects that gold will lose more than half of its present value.

The writers found no reasons in either science or history for expecting that the pre-depression price level could be maintained with all the world re-established on a gold basis, and therefore considered the price collapse to be inevitable. Just as there was no expectation that the high price level could be supported with the entire gold world re-established on a gold basis, so there is now no expectation that prices in gold can return to the pre-depression level if the former gold-using world continues to use gold for money, or continues to bid for gold. In a similar period following the Napoleonic Wars, there was no price recovery.⁴ Hoarding, caution in borrowing and lending, and desire for liquidity will continue for many years. Of course, a phenomenal and unprecedented gold discovery might change this.

The collapse in prices in gold is shown in figure 1. Prices fell

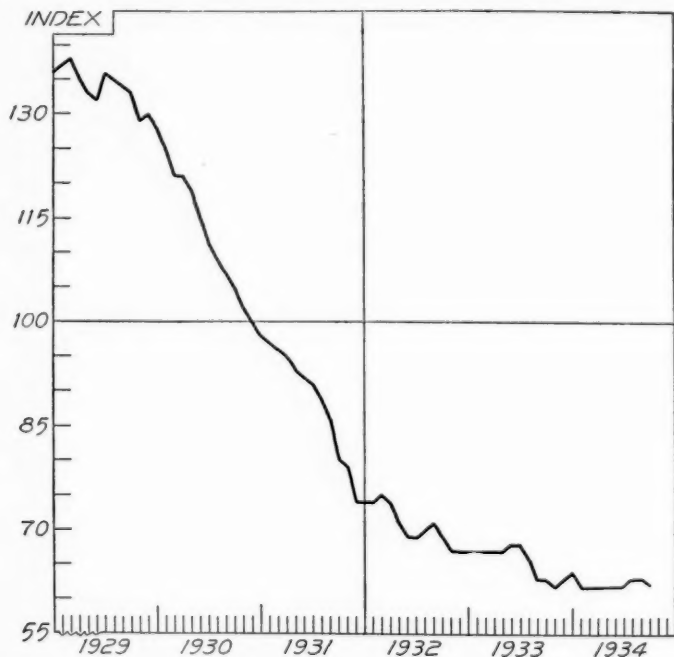


FIGURE 1. Prices of basic commodities in six countries expressed in pre-war gold currencies. Pre-war = 100.

⁴ Warren, G. F. and Pearson, F. A.: *Gold and Prices*, pp. 94, 103, 106-7. 1935.

precipitously for three years, and have fallen gradually for two years. Apparently the major portion of the drop is over. Ultimately, it is to be expected that gold will lose some of its excessive value, but this is likely to come as a result of getting out of the depression rather than as an aid in getting out, that is, hoarding and caution will gradually be reduced as a result of favorable experience in active business rather than in anticipation of such an experience. While prices expressed in pre-war gold currencies may be expected to rise, they are likely to remain below pre-war for some years.

Price of Gold

Even if gold is some day to lose as much of its value as Professor Kemmerer believes, the present generation must live in its own day. It cannot go on in idleness while waiting for gold to lose some of its value. Since such drastic deflation has proved impossible, most of the gold-using world has raised the price of gold. The most conservative group is the "dollar-sterling" group of countries, which includes England, South Africa, Canada, and the United States. This group of countries has raised the price of gold from 65 to 69 per cent (table 1). Another group of countries has more than doubled the price of gold. This includes Den-

TABLE 1.—INDEX NUMBERS OF THE PRICE OF GOLD IN VARIOUS COUNTRIES

	England	South Africa	India	Canada	United States	Sweden
December 1929	100	100	100	100	100	100
December 1930	100	100	102	100	100	100
July 1931	100	100	101	100	100	100
October 1931	125	100	127	112	100	116
December 1931	144	100	144	121	100	143
July 1932	137	102	137	115	100	147
October 1932	143	102	142	110	100	153
February 1933	142	144	141	120	100	147
July 1933	146	148	146	148	140	156
October 1933	155	157	155	152	149	165
October 5, 1934	167	167	166	165	169	178
December 3, 1934	166	166	165	166	169	177

	Norway	Finland	Denmark	Australia	New Zealand	Argentina	Japan
December 1929	100	100	100	102	100	104	100
December 1930	100	100	100	109	100	128	100
July 1931	100	100	100	131	...	138	100
October 1931	121	109	122	163	138	186	101
December 1931	145	149	144	181	...	165	115
July 1932	152	164	140	172	150	165	182
October 1932	156	170	152	179	157	165	216
February 1933	153	169	176	179	178	165	240
July 1933	160	171	180	184	183	167	242
October 1933	170	181	191	195	194	166	267
October 5, 1934	183	194	206	209	207	217	292
December 3, 1934	182	193	204	207	206	217	291

Switzerland and Holland still maintain their pre-war currencies. Their price of gold has continued at 100.

France, Italy and Belgium raised the price of gold previous to the depression so that their prices are higher than before the war, but have not been changed since 1929.

mark, Australia, New Zealand, Japan, and the Argentine. Since prices in gold throughout the world are generally less than half of what they were before the depression, only those countries that have more than doubled the price of gold have restored the pre-depression price level.

Those countries that were forced to, or had the judgment to, start reflation first have fared best. Australia and the Argentine left the gold standard in 1929 and avoided a large part of the depression. England left the gold standard September 21, 1931 and avoided the worst part of the depression. She was quickly followed by a large part of the world. The United States continued until our entire credit structure collapsed. After such a wreck, recovery is a slow and painful process. Had we followed the example of England in 1931, conditions here would be very different. England has been working toward recovery for three years. Our conditions rapidly became worse until the spring of 1933. We, therefore, had a much more serious injury to recover from, and about half as much time within which to recover. Compared with the United States, England has made excellent progress.

Results of Raising the Price of Gold

Some persons expected commodity prices to rise 69 per cent when gold was revalued in February. As a matter of fact, the price of gold was raised less than 2 per cent at that time. Most of the advance in the price of gold came from April to September 1933 and most of the increase in prices of basic commodities, of course, occurred at that time.

There is much confusion concerning the effect of raising the price of gold because economic forces rarely act singly. For example, in 1933 there were distressingly large stocks of cotton due to low consumption during the depression. The weather was favorable so that a large crop was in sight. After plowing under cotton, the world supply was still one per cent larger than for the previous year (table 2). Improved business conditions improved the demand for cotton in countries that were off gold, but the declining business conditions reduced demand in the countries on gold. The United States imposed a very high tax on cotton consumption which would lower prices. It also plowed under cotton and raised the price of gold, both of which would raise prices. The world level of commodity prices in gold was falling. As a result of all these forces the price of cotton in the United States rose. What made it rise?

TABLE 2.—PRICES OF MIDDLING COTTON 9 MONTHS, SEPTEMBER–MAY

	Sept. 1932 May 1933	Sept. 1933 May 1934	Percentage change
<i>Prices in gold:</i>			
Havre, France, francs per 50 kg.	224.56	226.00	+0.6
Amsterdam, Holland, florins per 100 kg.	42.39	42.26	-0.03
Liverpool, England, pence per lb.	3.78	3.76	-0.05
New York.	6.64	6.85	+3.2
<i>Prices in currency:</i>			
Liverpool, England.	5.45	5.87	+8
New York.	6.8	11.00	+62

Sources—Report of Administration of the Agricultural Adjustment Act, Weekly Trade Report of New York Cotton Exchange, and daily market reports.

The combined effect of the final supply of and demand for American cotton and the world supply of and demand for gold was such that for the nine months September 1933 to May 1934, compared with the same nine months of the previous year, there was no change in the price of cotton in gold. The price of middling cotton in gold declined a fraction of one per cent in Holland and England and rose a fraction of one per cent in France (table 2). The price of cotton in gold in the United States for September 1932 to May 1933 was 6.64 cents. Had the price of gold not been raised, this would have been the expected American price. Had nothing been done, that is, had no cotton been plowed under and no increase in the price of gold been made, prices would have been less than for the previous year, that is, less than 6.64 cents, presumably between five and six cents.⁵ The Yearbook of the Department of Agriculture for 1930 shows the relationships of the supply of American cotton to prices. By plowing under 25 per cent of the crop the supply of American cotton was reduced by 15 per cent. A decrease of 15 per cent in the supply of American cotton would not be expected to raise prices more than 25 per cent above what they would have been, but the heavy tax (about 38 per cent) on the portion of the supply consumed in the United States would have offset considerable of this.⁶ The price of cotton for nine months beginning with October 1933 averaged 11 cents. Had no cotton been plowed under, this price probably would have been reduced to between nine and ten cents.

The expected average prices for September 1933 to May 1934 were therefore as follows: nothing done, 5-6 cents; cotton plowed under, but price of gold not raised, 6.64 cents; price of gold raised,

⁵ Had the price of gold not been raised, business conditions probably would have been less favorable, and the demand for cotton would probably have declined and so would have adversely affected world prices of cotton and probably lowered this figure.

⁶ The above calculations are based on the potential supply and price as 100. With the actual supply and price expressed as 100, there would have been an 18 per cent greater supply of American cotton had none been plowed under and a probable reduction of nearly 20 per cent in price. The tax on the American consumption would have offset considerable of this.

but no cotton plowed under, 9-10 cents; crop plowed under and price of gold raised, 11 cents.

Of one thing we are certain. After plowing under cotton there was no rise in price except in countries that raised the price of gold. There is no theory about this fact. This is not surprising since the world supply of cotton was up one per cent even after destroying part of the crop.

Before the drought, prices for twelve farm products advanced more than the price of gold, and twelve advanced less. The drought has thus far increased prices of grain and feed, but has probably depressed livestock prices.

In order to determine the effect of monetary policy on farm prices, it is necessary to eliminate the effects of scarcity and taxation. American business men are firmly imbued with the idea that a smaller supply brings a higher price. It is equally true that at a lower price more is consumed. To deny the effect of price on consumption is to deny the whole theory of supply-price relationships. If the supply is reduced enough to raise prices by x amount, then a tax of x will completely offset the effect of the smaller supply and leave prices where they were. The consumer is, of course, concerned with the amount that he pays and not with its distribution between the tax collector and the producer. The Journal of Commerce index of prices for 30 basic commodities has followed the price of gold fairly closely. Since the world level of prices in gold has declined slightly, there is no reason for expecting such an index to rise more than the price of gold excepting as it includes some commodities, the supplies of which are short.

Many of the prices in the United States Bureau of Labor index of all commodities are administratively set. Many of these declined very little during the depression. For example, prices of farm machinery fell only 15 per cent from September 1929 to February 1933. During this same period, wholesale prices of steel rails fell 7 per cent; aluminum, 4 per cent; thread, 3 per cent; anthracite coal, 2 per cent; salt, 1 per cent; and sulphur remained unchanged. These industries were in distress not because of prices, but because so little business could be had at the set prices.

Reflation does not call for an increase in those prices which had not responded to deflation. It relieves such prices from the necessity of falling. For example, steel rails declined only 7 per cent from September 1929 to February 1933, whereas scrap steel declined 65 per cent (figure 2). It was not to be expected that steel rails would rise 69 per cent when they had failed to decline. For-

tunately their prices were lowered after the price of gold was raised and orders were received. The price of scrap steel more than doubled. This brought the two prices into equilibrium. Any index number which includes a considerable number of such items as steel rails is high and in an unstable position when prices are falling. The Bureau of Labor index for all commodities includes a large number of such items. In February 1933, it stood at 87 and was entirely out of line with raw materials and with the



FIGURE 2. Wholesale prices of scrap steel (Chicago) and steel rails (mill) (United States Bureau of Labor). 1928=100.

world value of gold. The further decline which would have been necessary was obviated and the index numbers reached 113 in September 1934, at which time it was 61 per cent above the world gold price level as indicated by the average for 11 countries.

The great accomplishment that has occurred in countries that left gold has been a movement toward restoration of balance in the price structure. With deflation, basic commodities decline precipitously, farm wages decline rapidly, whereas union wage rates, debts, taxes, utility charges, and many prices of manufactured goods that are administratively set remain high for years. Since wages make up so large a part of the cost of distribution,

the spread between producers' prices and consumers' prices remains abnormally high for years. Since it proved socially impossible to complete such a violent deflation, reflation was necessary. This is an internal rather than an external problem. Only a few countries are still following the deflation route and it is not likely that any of them can carry through.

Figures 3, 4, 5, and 6 show the maladjustment in prices resulting from inflation and how quickly it was possible to bring up

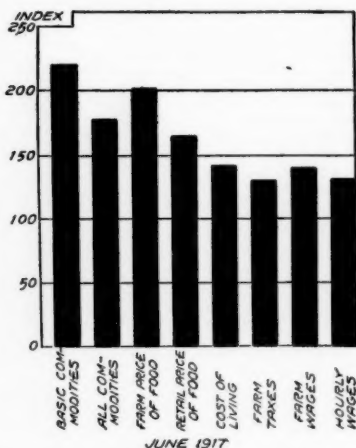


FIGURE 3. Unbalanced price structure due to rising prices, June, 1917. Pre-war = 100.

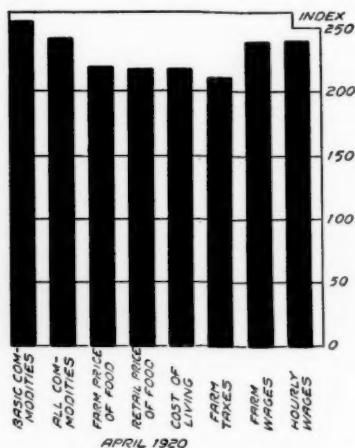


FIGURE 4. Price structure approaching a balance at a high level, April, 1920. Pre-war = 100.

slow-moving administratively-set prices in order to balance the price structure; but show that more than three years of deflation brought little progress toward a balanced deflated price structure. It is easy to adjust prices up, but hard to reduce the slow-moving items. Reflation made a start toward a balance in the price structure. Unfortunately, some administratively-set prices for manufactured goods, and certain classes of labor that had declined relatively little were arbitrarily raised. Many of these items must be deflated unless the price level rises. Those countries that have doubled the price of gold are approaching an equilibrium in their price structure.

The long-time trend in wages is upward in purchasing power for commodities. For 75 years before the War, the output of commodities per capita increased 1.7 per cent per year and the purchasing power of wages also increased 1.7 per cent per year. Production increased fairly uniformly, but wages lagged somewhat when prices were rising and lagged for years when prices

were falling. If the pre-war trend of wages had continued, a wage level of 44 per cent above commodity prices would be expected for 1934 and 47 per cent above pre-war for 1935. That is, if commodity prices were at pre-war, a wage index of 144 would be expected. With a price level of 140, a wage level a little above 200 would be expected. Many wages are now as high as before the price collapse. To have full employment, either such wages must decline, or prices must rise.

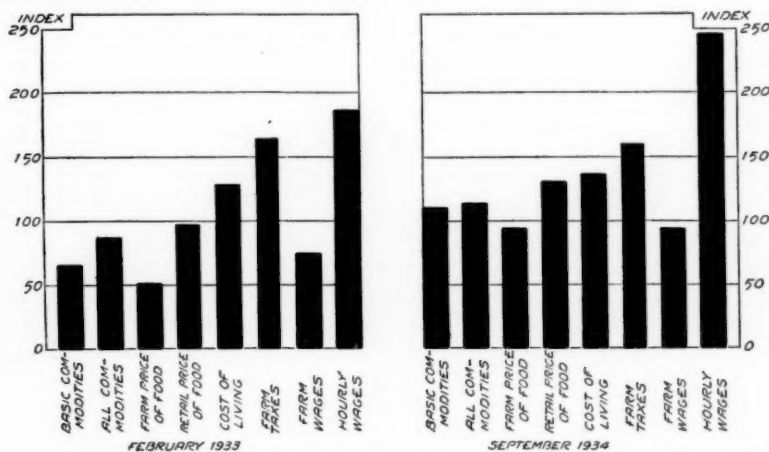


FIGURE 5. Unbalanced price structure due to deflation, February, 1933. Pre-war = 100.

FIGURE 6. Partial reflation, a start toward a balance in the price structure, September, 1934. Pre-war = 100.

National and International Prices

No country can keep its commodity price level far out of line with world prices when expressed in gold (or when expressed in silver or in any other commodity that is easily and freely moved). That this law continues to operate in spite of quotas, tariffs, bounties, restrictions on production, or monetary changes is shown in table 3. For example, in September 1934 prices in Belgium were 470 when pre-war is 100. But Belgium raised the price of gold to nearly seven times what it was before the war. Her prices in gold were 68 per cent of pre-war. Canada had a price level of 112. She raised the price of gold 1.64 times so her price level in gold was 68, exactly the same as for Belgium. Denmark had a price level of 67 in gold, but, having doubled the price of gold, her prices in currency were 135. The average of prices in gold for eleven foreign countries was 70. The Bureau of Labor

index expressed in gold was 67. These index numbers differ as to the commodities included and as to the weights. To test the law, they should include identical commodities with identical weights, but it is interesting to note that in spite of the fact that prices in currency varied from 77 to 470, prices in gold were approximately comparable.

Prices of raw materials in five foreign countries averaged 63 in gold and the Bureau of Labor index for raw materials in September was also 63 in gold (table 3). Studies were made of basic

TABLE 3.—COMMODITY PRICES IN 1934 IN CURRENCY AND IN PRE-WAR GOLD CURRENCY
PRE-WAR=100

General index numbers	Month	Prices in currency	Price of gold	Prices in gold
Australia, Bureau of Census and Statistics.....	July	148	2.05	72
Belgium, Ministry of Industry and Labor.....	September	470	6.94	68
Canada, Dominion Bureau of Statistics.....	September	112	1.64	68
Denmark, Statistical Department.....	September	135	2.03	67
England, Board of Trade.....	September	105	1.65	64
France, General Statistical Bureau.....	September	365	4.92	74
Holland, Central Bureau of Statistics.....	September	77	1.00	77
Italy, Riccardo Bachì.....	September	270	3.67	74
New Zealand, Census and Statistics Office.....	August	134	2.03	66
Norway, Central Bureau of Statistics.....	September	126	1.80	70
Sweden, general index.....	September	115	1.76	65
Average, 11 countries.....				70
United States (B.L.S. "All-commodity").....	September	113	1.69	67
Raw materials				
Canada, raw and partly manufactured.....	September	101	1.64	62
England, Statist.....	September	97	1.65	59
France, raw materials.....	September	320	4.92	65
Italy, weighted Otologheni, materials.....	September	255	3.67	69
Sweden, raw materials.....	September	103	1.76	59
Average, 5 countries.....				63
United States (B.L.S. Raw materials).....	September	107	1.69	63

commodity prices in 12 countries. As nearly as possible to identical grades were used. Prices for twenty such commodities were available in the United States and Italy. From February 1933 to February 1934, these commodities fell 2 per cent in Italy and rose 70 per cent in the United States, or in gold, they fell 2 per cent in Italy, and rose less than one per cent in the United States. Prices for 22 commodities were available for Switzerland and the United States. These rose 8 per cent in Switzerland and 80 per cent in the United States, or in gold the advances were 8 and 7 per cent. Prices were available for 22 commodities in England and in the United States. These rose 13 per cent in England and 73 per cent in the United States. Since England raised the price of gold 13 per cent, prices were stationary in gold, whereas in the United States they rose more than 2 per cent. Averaging the available comparisons, prices in gold advanced 1.2 per cent in 11 foreign countries and 1.8 per cent in the United States.

An index number comparable to the Sauerbeck-Statist has been prepared for the years 1913 to 1934. Even during the War, these index numbers in gold kept on a fairly comparable basis. By leaving the gold standard in 1931, England stopped the price collapse at a time when prices in all gold standard countries were declining precipitously. The United States left the gold standard at a time when prices were declining gradually and brought prices to the English price level very quickly. American prices have

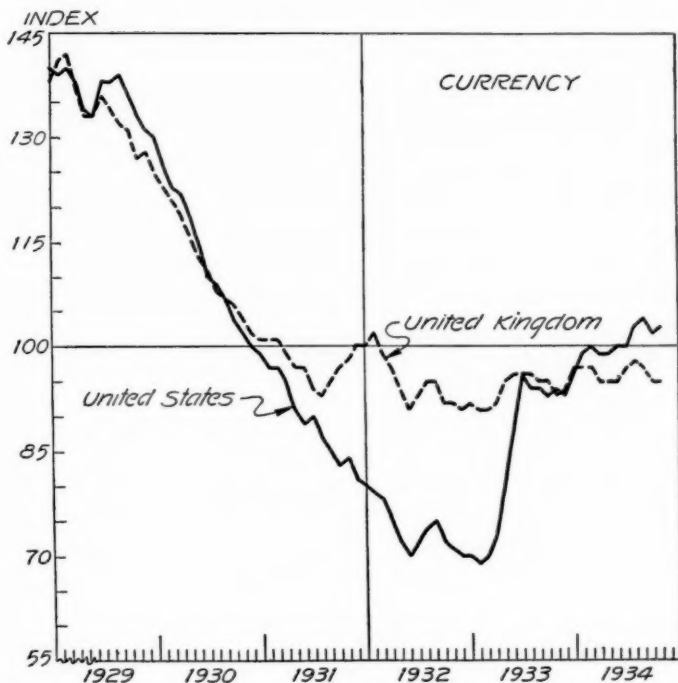


FIGURE 7. The Sauerbeck-Statist index number for England and a comparable index for the United States. 1913 = 100. Prices in currency.

been above the English price level since the pound has been above \$4.86 (figure 7). Comparisons of index numbers of prices for England with the United States for more than a century also substantiate this law.

When prices change suddenly, retail prices and administratively-set prices lag so that while most basic commodities respond quickly, general index numbers move more slowly. In spite of monetary and trade chaos and differences in the index numbers, the highest of the general index numbers for 12 countries in September was 77 and the lowest 65 (table 3).

Apparently wholesale prices of all commodities have no secular trend away from wholesale prices of basic commodities, but move more slowly when price changes occur. Using 1910-14 as 100, an index number for 30 basic commodities for the United States was identical with the Bureau of Labor index for all commodities in 1891, before the war, and in 1926.

The quickness of response to a change in the price of gold has been incorrectly stated by many persons who have thought that only import and export commodities were affected. Any force that changes the general level of prices, acts most promptly on prices that are day by day determined by supply and demand. It acts more slowly, but finally just as fully on prices that are administratively set. (In some cases the lag may be for many years.) The lag for administratively-set prices is less when prices are rising than when they are falling. If after an incompleting price movement a force is applied which reverses the direction of movement, the slow movers may be relieved from the necessity of moving. This is just as effective a response as an actual movement. It happens that prices for most farm products and many other basic commodities are not administratively set. These respond quickly to changes in the price of gold regardless of whether they are domestic, import, or export commodities. But a basic export commodity the price of which is administratively set may respond slowly. For example, sulphur is an exported basic commodity, but according to the Bureau of Labor Statistics the price of crude sulphur at the mines remained at \$18 per ton throughout the depression and so continued after gold was revalued. The inclusion of such a commodity slows down the movement of any index number.

This law of similarity of price movements when prices are expressed in terms of a commodity that is easily and freely moved is well known to students of prices, but seems to be forgotten in recent years. Innumerable schemes have been proposed and many have been tried to attempt to control the internal price level of a country while remaining on gold. Edie states that "wholesale price levels of all gold-using countries oscillate in proximity to a world-level of wholesale prices expressed in gold. No single country can inflate or deflate wholesale prices far out of line with this central world tendency. No matter what the gold trend of an individual country may be, its wholesale price trend will with minor aberrations conform to the world trend."⁷

⁷ Edie, L. D., *Gold Economics and Stable Prices*, Journal of Political Economy, Vol. XXXVII, No. 1, p. 3, February 1929.

Fisher arrives at the same conclusion. "Countries with like monetary standards have like price movements. Countries with unlike monetary standards have unlike price movements."⁸

Kitchin states, "the amount of gold required to keep pace with the economic progress of Great Britain cannot be sharply distinguished from that required for the world. What affects one will affect the other, and commodity prices are to a large extent world prices."⁹

This matter is also discussed in the report of the Columbia University Committee on Economic Reconstruction: "The paramount duty of the central bank of a country adhering to the gold standard has been to maintain its currency at par with gold. In fulfilling this function it could not at the same time independently put into effect measures designed to maintain internal stability. The attempts of various central banks and treasuries since the War to pursue both policies at once or to reconcile them have inevitably broken down.

"If world gold prices are falling, a country has the choice between two and only two courses: to maintain its price level stable above that prevailing abroad at the risk of being forced eventually to abandon the gold base, or to lower its entire internal price and money income structure in line with the fall of world gold prices."¹⁰

They might have added that any central bank that attempts to maintain the gold standard and at the same time control the nation's price level will merely discredit itself.

Effect of Revaluation on the Value of Gold

Many statements have been made to the effect that when England, and later the United States, left the gold standard they forced a collapse in prices in countries that remained on gold. The writers have found no facts to substantiate this theory. The evidence seems to point in the opposite direction (tables 4 and 5). England left the gold standard at a time when prices were declining precipitously and gave no signs of stopping. In most of the cases studied, prices in gold standard countries declined by a greater amount in the six months before England left gold than they did in the following six months. Prices in France and

⁸ Fisher, I., Are Booms and Depressions Transmitted Internationally Through Monetary Standards? XXII Session de l'Institut International de Statistique, Sect. 2, p. 6, 1934.

⁹ Kitchin, J., Statement of Evidence Submitted by Mr. Joseph Kitchin, Manager and Director of the Union Corporation, Ltd., London; Appendices to the Report of the Royal Commission on Indian Currency and Finance, Vol. III, Appendix 82, p. 526, 1926.

¹⁰ Economic Reconstruction, Report of the Columbia University Commission, pp. 26-7, Columbia University Press, 1934.

Italy declined more in six months before the United States left the gold standard than they did in the following six months.

So far as the writers have been able to determine the statistical evidence indicates that whenever a country makes a monetary change that improves its internal situation, it is helpful to

TABLE 4.—EFFECT OF THE SUSPENSION OF THE GOLD STANDARD BY ENGLAND AND OTHER COUNTRIES IN SEPTEMBER 1931 ON PRICES IN COUNTRIES THAT WERE ON GOLD
PRE-WAR=100

	Raw materials*			All commodities**		
	France	Italy	United States	France	Italy	United States
Index number for February 1931.....	89	86	97	109	92	112
Index number for August 1931.....	80	78	87	99	88	105
Index number for February 1932.....	70	74	79	91	86	97
Points decline six months before gold standard was suspended.....	9	8	10	10	4	7
Points decline six months after gold standard was suspended.....	10	4	8	8	2	8
Percentage decline six months before gold standard was suspended.....	10	9	10	9	4	6
Percentage decline six months after gold standard was suspended.....	13	5	9	8	2	8

TABLE 5.—EFFECT OF THE SUSPENSION OF THE GOLD STANDARD BY THE UNITED STATES IN MARCH 1933 ON PRICES IN COUNTRIES THAT WERE ON GOLD

	Raw materials*		All commodities**	
	France	Italy	France	Italy
Index number for August 1932.....	69	71	84	81
Index number for February 1933.....	68	70	82	78
Index number for August 1933.....	72	69	81	76
Points change six months before suspension of the gold standard.....	-1	-1	-2	-3
Points change six months after suspension of the gold standard.....	+4	-1	-1	-2
Percentage change six months before suspension of the gold standard.....	-1	-1	-2	-4
Percentage change six months after suspension of the gold standard.....	+6	-1	-1	-3

* France—index of raw materials, 1913=100, adjusted to a pre-war gold basis by dividing by 4.92. London and Cambridge Economic Service, Supplement to Monthly Bulletin vol. xii, no. x, p. 314, November 7, 1934 and other numbers.

Italy—Ottolenghi weighted index of materials, 1913=100, adjusted to a pre-war gold basis by dividing by 3.67. London and Cambridge Economic Service, Supplement to Monthly Bulletin vol. xii, no. x, p. 325, November 7, 1934 and other numbers.

United States—Sauerbeck-Statist index, 1913=100. Gold and Prices, p. 182.

** France—General Statistical Bureau index of 126 items, 1913=100, adjusted to a pre-war gold basis by dividing by 4.92. Wholesale prices, Bureau of Labor Statistics, October 1933 and other numbers.

Italy—Riccardo Bachi index of 140 items, 1913=100, adjusted to a pre-war gold basis by dividing by 3.67. Wholesale Prices, Bureau of Labor statistics, October 1933 and other numbers.

United States—Wholesale prices of all commodities, 1910-14=100.

the world as a whole. By such acts, internal business is started and the Nation begins to import those things that it normally imports and fear and hoarding is reduced. Revaluation is primarily an internal question, but the countries that have come nearest to restoring a balance in their internal price levels are those that are helping world recovery most. They are the countries in which there is the least political turmoil and in which the

movement toward a saner international trade policy is growing. The sooner the "gold bloc" countries leave the gold standard, the better it will be for their own internal economic and political welfare as well as for world recovery.

Can a Country Make Gold Cheap?

From the previous discussion, it follows that no country on the gold standard can keep its internal commodity price level far out of line with world prices in gold by the discount rate, excess reserves, velocity, greenbacks, silver certificates, Federal Reserve notes, unbalanced budgets, public works, tariffs, bounties, quotas, crop destruction, or by giving away money. This is regardless of how meritorious or injurious any of these may be from other standpoints. The facts are that no country has by any of these means been able to hold its commodity price level materially out of line with the world price level. If it is to affect its own price level in gold strikingly, it must carry the world with it. A country can affect the prices of some individual commodities, but cannot hold its average level of all commodity prices far out of line with world prices in gold. Of course, if, as a result of any of these acts, or for any other reason, a country is unable to maintain its currency at par with gold, it can easily affect its price level. It can control its commodity price level by changing the price of gold, or by using a managed currency not tied to gold.

Can Gold Be Made Cheap by International Agreement?

There is today much popular discussion of a return to the gold standard, but with the proposal that hereafter the value of gold will be regulated. Such an idea admits the failure of the gold standard in the past and assumes some basis for decision as to what value gold should have. After having made the decision, it proposes that it will regulate not only the value of money, but the value of gold which is a far more difficult thing to do. Those who are opposed to "tinkering" with money propose to "tinker" with the value of gold and thereby control the value of money. If the former gold-using world continues to use gold as money, it will find it extremely difficult to have any considerable permanent effect on the value of gold. If a country will leave the gold standard and stop bidding for gold, it can influence its value.

Theories about controlling the value of gold generally assume that gold is a monetary non-industrial product and also ignore the effect of value on production. Nearly half of the world's gold supply is used in industry. For many years before the war, the

consumption of gold in industry increased at nearly the same rate as the production of all commodities—a little more than 3 per cent per year. From 1850 to 1929, 56 per cent of world gold production was added to monetary stocks. Slightly less than this proportion was added during the last ten years of the period. Gold is not losing in industrial desirability, but its industrial use is very sensitive to business conditions and to the value of gold.

Industrial uses in the thirty years following 1844, 1849, 1854, 1859, 1884, 1889, 1894, and 1899 were in each case more than the world gold monetary supply at the beginning of the period in addition to using all the second hand gold. It took more than 30 years to use up the large stocks of 1864, 1869, 1874, and 1879. In the 70 years before the war, a value of gold 20 per cent below normal was normally accompanied by a consumption 35 per cent above normal. This places it in the class of flexible commodities.¹¹ If, for instance, by international banking agreement, a plan were devised to use gold so efficiently as to reduce its value by one-half, industrial consumption of gold would be more than doubled, production would be discouraged and, barring some unprecedented discovery, it would not be many years before gold would become very scarce. The world has had enough experience with price fixing so that it ought to know that it cannot readily hold down the value of a product below what the supply of it calls for. The relative values of gold and all commodities are normally in proportion to their relative supplies.

DISCUSSION BY A. W. MARGET

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It is a wholesome thing, it seems to me, for economists to reason with themselves from time to time and ask precisely why they disagree. To some people, to be sure, the mere fact of disagreement among economists is enough to condemn the subject of economics. Of course that is a cruel and unjust conclusion. If it has any force at all, it is only because we ourselves have not taken the trouble to find out what the precise reasons for disagreement are. Let us, therefore, by way of clearing the ground, draw up a list of the reasons why economists might disagree on such a question, say, as monetary policy and the relation thereof to movements in prices.

1. There is, in the first place, the question of the relative competence of two given disputants. This is, in every instance, a real question, and one which is of importance for a justification of economics in the eyes of our non-economist brethren. Yet it seems to me that as we survey in retrospect the happenings of the past few years, we shall agree that some

¹¹ Warren, G. F. and Pearson, F. A., *Gold and Prices*, pp. 123-134, 1935.

things that were said would better have been left unsaid. The drawing up of lists of "those who know something about money" on the basis chiefly of one's sympathy or lack of sympathy with the proposals for monetary policy with which the names on the list were associated or to which they were opposed, does not seem to me to be the kind of thing to which we shall look back with pride in years to come. We can, and we should, let the merits of a given dispute rest upon the contributions of the particular disputants in question. We can safely, and we should, leave it for posterity to judge who did know, and who did not know, "something about money."

2. There is, in the second place, the question of the inherent logic of a given proposal. If this were all that divided economists, I am inclined to think that the bickering which now seems so amusing or so scandalous to outsiders would be so slight as to be unnoticed. If all that were involved, for example, in the proposal to "do something for silver" were the question of the inherent logical consistency of the argument holding that a rise in the price of silver would "increase the purchasing power of the silver-using countries," does anybody seriously believe that any economist of any sort of standing could be found to defend a policy which in fact brought official protests from the countries whose "purchasing power" such a policy was supposed to increase?

3. There are, in the third place, the difficulties which arise from the misapplication of a proposition correct in itself to a given concrete situation. I cannot imagine, for example, that any competent economist would object to the proposition that so long as the currencies of the world are based on gold, the purchasing power of these currencies will be determined in the long run by the supply of and the demand for gold. But it is surely a misapplication of this proposition to argue that in a given instance in which prices have fallen rapidly, the price-fall *must* be attributed to a specific factor such as the supply of gold. A refusal to accept this conclusion might be perfectly consistent with an acceptance of evidence designed to prove that the probable trend of the factors operating upon both the supply and demand sides of the gold problem were such as to make probable a downward trend in prices over a long period.

I wish I could say that the difference between economists on this type of question is one which does not touch the question of the adequacy of the theoretical apparatus of the two parties in the dispute; but I cannot. Obviously what is involved is an understanding of what has been called the "inherent instability of credit" and the relation thereof to those particular movements in prices which may, without giving rise to misunderstanding, be called "cyclical," as opposed to secular. To apply to every case of price-fall, or even to apply to a given case of rapid price-fall, a type of analysis which can, at best, help to explain only why some cyclical movements reach higher peaks or lower troughs than did the preceding cyclical movement, is a procedure which can be justified only upon the basis of acceptance of an analytical technique which is obviously too crude to be satisfying. Here is a source of bickering among economists which will not pass until one party to the controversy admits his error. And those who do regard the "inherent instability of credit" as the major factor in cyclical price-movements are not likely to yield their ground until the other side shows precisely why the arguments with respect to the "inherent instability of credit" are logically unsound.

4. There are difficulties, in the fourth place, which derive from the fact that, too often, we do not state with precision the assumptions underlying our argument. Consider, for example, what is involved in any attempt to reason upon the basis of a forecast with respect to the future "demand for gold." Included in that demand is, of course, the crucial *monetary* demand. Now it has been argued that any competent economist should have understood that the measures introduced to "economize" gold in the early post-war period could not possibly have been maintained, so that a forecast of a drastic fall in prices from the level which those economies had made possible was inevitable. Precisely what is there, however, in economies which tells us that those economies could not have been maintained? What was called for, above everything else, was a political judgment,—and particularly a judgment with respect to the future course of *international* politics. Unless this was made clear in the forecasts, I do not see why the forecasters should claim credit for their forecast; because, obviously, the political developments which were tacitly assumed in their forecasts might, for all they knew, have turned out entirely differently.

It is obvious that what is involved in bickerings of this type is much more than the mere question as to whether a given forecaster should or should not be given "credit" for a successful forecast. Whether he is given "credit" or not does not matter for the future of our subject. What does matter is that the fate of that subject should not be identified with the success or failure of a given forecast in which vastly more is involved than the power or coherence of the *economic* analysis underlying the forecast. Let us say, if we will, that the successful forecasters were shrewd guessers with respect to political developments in the near future (I will not press the point that, unless the political grounds underlying the forecast were clearly stated, the "guesses" had better be called merely "lucky"); but let us not, in any case, say that the success of such individuals in their political guessing is proof of the superior power and coherence of their economic analysis.

5. A fifth group of difficulties derives from differences, as between different economists, in the amount of scruple with which historical precedents are adduced. So long as history involves, as it inevitably does, a *selection* of facts, we shall have to fight the tendency in all of us to select the facts which, if typical, would strengthen our case immeasurably.

It has always seemed to many of us, for example, that a highly arbitrary selection of facts is involved in any attempt to find precedents for the American devaluation of the dollar in the post-war experiences of European nations. They, also, were confronted with a problem which Mr. Keynes, a dozen years ago, dubbed "Deflation versus Devaluation." Within narrow limits, also, they had the choice of setting the foreign-exchange value of their currencies at a level which would give them a temporary advantage in export trade. But to point to these facts as support for the American devaluation is to forget others which have been pointed out so often that I shall not bother to repeat more than two: (1) There is the fact that the French "devaluation," for example, was not a devaluation of 75 per cent as compared with our "moderate" devaluation of 40 per cent, in any sense which makes the American action comparable, for the reason that by far the greater part of this "75 per cent" devaluation was merely the registration of an existing internal depreciation. The

French devaluation cannot, therefore, be put upon the same basis as the American, from the standpoint of "advantage in export trade." (2) There is the fact that the French "devaluation" was undertaken as part of a program of stabilizing a currency that had been extremely unstable previously, whereas the American devaluation, as actually carried through by means of the "gold-buying policy," was an instance of direct action in a setting for which no parallel existed in the French situation at all.

I see no way to end bickerings of this type other than the adoption by all of us of a solemn resolution to the effect that our calling is too high a one to be lowered to a level characterized by tactics typical of a professional advocate in a court of law. So far as the type of difficulty I am now considering is concerned, it might be best, in view of the base uses to which something called "history" has been put in the past, to abandon it whenever we become advocates, and to resolve that the case for any measure we may advocate as individuals should be made to stand upon its own feet, without the help of tottering analogies from what the historian mindful of the high responsibilities of *his* calling would refuse the name of "history."

6. There is a sixth source of difficulty, which arises as soon as we allow economists—as they should be allowed, despite all the dangers involved—to become "advocates"; namely, the difficulty that it is one thing to diagnose a situation, and another to provide a remedy. It is easy to say that if the diagnosis is correct, the proper choice of a remedy will follow automatically. So it would, if all the diagnosers were capable of the patience and restraint and sober judgment that characterizes the really able practitioner.

Consider, for example, the relation of the American devaluation to that diagnosis of the then existing price-situation which blamed the latter upon an alleged "shortage of gold." Let us suppose, for the sake of argument, that the diagnosis was correct. Is it equally clear that the cure proposed was a wise one? The cure for a world-wide shortage of gold—and no American, surely, could attempt to make a case for "gold shortage" except in terms of the world situation—ought to have been world-wide action: a simultaneous devaluation which would have kept foreign-exchange rates at precisely the same levels as before, without bringing in a threat of the currency war which we seem to have escaped thus far chiefly because France is more important as a competitor and customer of Great Britain than we are, but which may yet break upon us. The defense of our action, I understand, is that the other nations still on the old par should have had sense enough to follow us; and that if they suffer now from our action it is their own stupid fault. That is one position; but, for myself, when I recall that our action took place at a time when the nations of the world were assembled to discuss amicably their joint economic problems, and was accompanied by a tart refusal by the American authorities to discuss joint international action, I must say that the defence is not one of which, as Americans, we can be altogether proud.

The remedy for this type of bickering between economists again will come only if we stick to our lasts as economists even when we step forward as advocates. It is the proper function of an economist, as an economist, to survey the possible methods of obtaining a given result, and to be perfectly honest in pointing out the dangers of one method as

against another. It is no part of his job as economist to dispense gratuitous advice to foreign nations upon the wisdom of devaluating their currencies, if they wish to avoid the consequence of further "deflation" which in fact was forced upon many largely by our own policy of currency depreciation, or to give this advice without taking account of the uncertainties of an atmosphere in which there still live memories of the wartime monetary experiences of which their last "devaluation" had been regarded as a final symbol.

7. The seventh difficulty is one of the most subtle and treacherous of all, since it arises in the first instance not from any differences in economic reasoning, but from differences in temperament, pure and simple. Some of us, impressed by the hardships of a given situation, call for radical experiment. Others, equally sensitive to those hardships, but convinced that they arise in large part from the errors and weaknesses of the men charged with carrying out measures of economic policy in the past, fear the emergence of new difficulties with the adoption of measures that will carry us on into untried fields.

Such differences of temperament will always lead to differences among economists so long as economists are called upon to give advice with respect to given measures of economic policy. Yet if this were all that separated the advocates of radical experiment from the advocates of what might be called constructive conservatism—i.e., a conservatism which takes the form of specific injunctions designed to make a familiar system work as well as it can work—we should not need to worry about the future of our subject as such. The unfortunate aspect of the matter is that we do not confine these differences of temperament within the limits to which they should be confined. The radical experimenters paint the existing situation blacker than it really is; they ignore the possibilities of a type of "experiment" which is in fact nothing more nor less than an attempt to return to established rules which have been systematically ignored in recent years; they systematically impute to their own proposal a type of frictionless operation which, if assumed for existing institutions, would make these institutions work perfectly.

I wish I could say that the "conservatives" have always shown a much greater degree of detachment; but I cannot. They have tended to underestimate the seriousness of the existing situation as much as the radical experimenters have overestimated them; they have often based their defense of the existing system not upon the possibilities of its successful operation under present conditions, but upon its successful operation under conditions which do not exist now, and which must be brought again into existence if the old system is to work. I say all this precisely because my own sympathies are distinctly on the conservative side in matters of monetary policy; and because if we are to have that sort of searching of hearts which will reduce to a minimum the differences between economists which do not derive from differences in economic analysis, it must be a searching of hearts which includes oneself as well as one's opponent.

8. There is an eighth, and final, difficulty which leads to bickerings among economists in the matter of monetary policy and prices—and this also arises because we differ as men. There are those who feel that a

given end of social policy justifies the means; there are others of us who do not.

It has been held justifiable, for example, to defend the "means" of devaluation, on the ground that by that action we held off legislation that might have been worse. I submit that this may constitute a justification for an unremitting attack upon "worse" legislation, but that it constitutes no defense of devaluation, as such. It has been held justifiable, on the other hand, to refrain from discussing publicly the only measure of monetary policy—if "policy" it can be called—thus far adopted by the government, which can be said to have teeth in it, and to which must be attributed a very large part of the price-rise that has been going on, namely, the sale to deposit-creating commercial banks of the government securities arising from the fact of an unbalanced budget. Such silence has been demanded on the ground that the situation is not yet serious, and that there is no reason for alarming people without reason. There are others who, themselves feeling that the situation is "not yet serious," have nevertheless attempted to reach the "end" of awaking people to the latent danger of the situation by the means of sensational utterances which prophesy immediate ruin, and usually end with the advice to rush to buy real estate and common stocks.

I submit that the economist has no duty, as an economist, to justify, by talk of "means" and "ends," a public statement which he does not believe to be true in all its details and with all its implications. I submit that, as an economist, he has no duty which takes precedence over the duty to describe the situation as it is, serious or not serious; and that when he goes beyond that point to "influence public opinion" by the use of statements he knows to be palpably false, he is prostituting his calling and betraying his trust. The problems of monetary policy that we face now and will face tomorrow are mere incidents that will pass. What will remain will be the substance of the discipline we have inherited from our predecessors, living and enriched if we are faithful to our trust, a relic and museum-piece if we go after the false gods of the passing moment.

SOME RESULTS OF GOVERNMENTAL ATTEMPTS TO FOSTER RECOVERY¹

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Since early in 1930, a large part of the energy of high officials of the Federal Government has been devoted to the problem of fostering recovery. Many supposedly helpful devices have been utilized. What have been the net results?

Both the Hoover and the Roosevelt administrations have repeatedly tried to bring about recovery by assuring the public that, the worst of the depression being past, everyone should proceed at once to buy goods, hire labor, and prepare for the prosperity just around the corner. There is no evidence that all of these campaigns combined have, in any degree, furthered the recovery of business. These campaigns have failed for the simple reason that the buying power of an individual is usually tied closely to his income. It follows that, if he buys more of one article, he buys less of another; if he enlarges his purchases this week, he curtails them next week. The only way to expand materially the total volume of purchases over any considerable period of time is to induce large numbers of persons to buy more than their respective incomes. They can do this only if they buy on credit, and, in time of depression, few people both can and will take this risk.

Another device used early in the depression was the enlistment of the leading employers of the nation into a league for maintenance of wage rates. This league was entirely too successful. Owing to credit collapse, the total buying power of the public had shrunk, until it was far below the peak of 1928. Under these circumstances, the employers of the nation had two options:

1. They could reduce the selling prices of their products sufficiently to maintain the total volume of production at the 1928 level. Obviously, this could not be done without cutting wage rates decidedly.
2. They could maintain selling prices and wage rates, reduce production sharply, and lay off all but the most efficient members of their respective working forces.

Had they taken the first course, it seems highly probable that

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economics Association, Chicago, December 26, 1934.

² The author wishes to acknowledge the assistance rendered by the Works Division of the Emergency Relief Bureau of the City of New York, and by Rita J. Nathan, Jack Ochs, Benjamin Schwartz, and Marvin M. Wolfsey, all students at New York University, in collecting data.

the depression would never have attained serious proportions. However, they followed the advice of the Administration, doubtless mainly because they believed it indicated sound policy. As a necessary result of this course, urban workers were laid off by the millions and their purchasing power declined radically. This

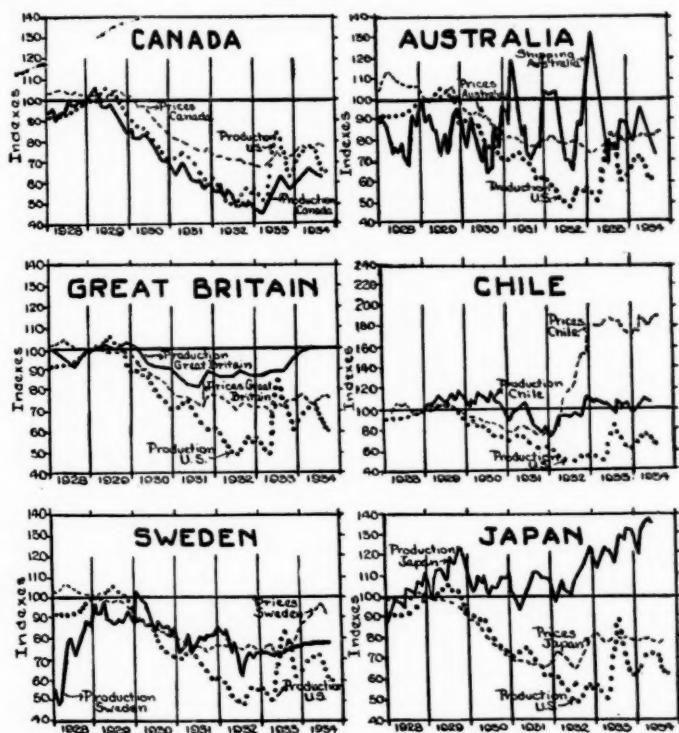


FIGURE 1. Price level and production movements in various nations compared with production in the United States, 1928-1934.

shrinkage greatly lessened the demand for food, hence farmers soon found that they could market their products only by accepting ruinous prices. Transformation of a minor depression into a major one was thus assured.

During the halcyon days of 1925 to 1929, a vast volume of deposit currency had been created by borrowing from banks. After the 1929 crash, this volume shrank sharply and caused a radical decline in all wholesale prices. The price decline was, however, especially severe in the case of raw materials. This fall in prices not only sharply reduced business profits but, indeed, actually threatened the solvency of a large proportion of the nation's private enterprises, including banks and insurance companies. By

the end of 1931, the situation was so desperate that President Hoover felt himself compelled to take some action to support the price level. The course determined upon was to have the Federal Reserve Banks purchase government bonds in the open market. Therefore, in the early Spring of 1932, they began buying bonds on a large scale, and, by July, more than a billion dollars worth had been purchased; but the price level did not respond as expected. Many authorities on money and prices contend, indeed, that the price level failed to show any response whatever. However, the records indicate that, in the face of the fact that the commercial banks were cutting down their outstanding volume of loans by some \$66,000,000 monthly, total demand deposits in this same class of banks rose by more than a billion dollars between July, 1932, and January, 1933,³ the decline in the general price level halted and commodity prices of the more volatile type moved up decidedly. For example, the Annalist index of wholesale prices rose from 88.6 in June 1932, to 95.2 in September of the same year.

It is, of course, possible that this change in the price trend was in no way connected with the bond buying operations of the Federal Reserve Banks. However, no other satisfactory explanation of the phenomenon has yet been advanced, and, until such an explanation is forthcoming, we are justified in adhering to the hypothesis best supported by deductive reasoning—namely that “open market operations” of the Federal Reserve Banks created purchasing power hitherto non-existent, and by thus increasing demand, caused the rise in prices.⁴

The slowness with which prices responded to the bond buying campaign is probably explained primarily by the fact that, while the Federal Reserve Banks were buying bonds, the Treasury was borrowing more money, thus offsetting in part the effect of the “open market operations.” Later, however, when the credit obtained by the Government through its borrowing was used to pay employees or to buy supplies and equipment, and when those who had sold bonds to the Federal Reserve Banks began to invest the proceeds, the price level began to rise.

As might be expected, business did not respond instantly to the stimulus, but lagged a month or two. Among the indicators, the following showed definite advances: the estimated physical volume of department store and mail order sales,⁵ freight car load-

³ See the U. S. Survey of Current Business, July, 1933, p. 30.

⁴ The reasons underlying this conclusion are set forth more fully in a paper to be presented on Dec. 27th, 1934, at the meeting of the American Statistical Association. The paper is entitled, “Recent Monetary Experiments and Their Effect upon the Theory of Money and Prices.”

⁵ These estimates have been arrived at by dividing sales in terms of dollars by the Fairchild index of the prices of articles of the type principally sold by department stores.

ings, number on factory pay rolls, total wages of factory workers, and the purchasing power of these wages, pig iron production, imports, and exports. Of the indicators covered by this study, automobile production and lumber production were the only ones apparently affected little or not at all by the upward movement of prices.

As previously indicated, July, 1932, saw the end of extensive bond purchasing by the Federal Reserve Banks.⁶ One reason for ending the campaign was that those in charge were discouraged by the fact that the member banks had not only failed to expand their volume of loans, but instead, had continued their endeavors to make their assets more liquid. For this reason, the campaign was erroneously believed to have been a failure. A second, and probably far more potent reason was that this program of currency expansion had caused foreign creditors to start a run upon the gold reserves of the Federal Reserve Banks. When those reserves had dwindled by over \$400,000,000, critics began to question seriously the ability of the government to maintain the gold standard, and those in charge felt that they could not safely continue the "open market operations."

Although the Federal bond buying program stopped in July, 1932, the price rise persisted until September. Thereafter, the continuing rapid shrinkage in the loans of commercial banks, apparently became dominant in controlling the price level, for it again moved downward until February, 1933.

This price decline was accompanied by a steady fall in the estimated physical volume of department store and mail order trade, by a shrinkage in the number of car loadings, the number of persons on factory pay rolls, the purchasing power of their total wages, and by a falling off in pig iron production, imports, and exports. Lumber production was apparently unaffected, and automobile production, contrary to the course of most other business indicators, began to move upward.

Then came the inauguration of President Roosevelt. The banks were closed, overhauled, and re-opened on a sound basis. Before this process had been completed, came the President's announcement of a definite intention to raise the price level materially. Strangely enough, this bare announcement accomplished more than did the whole bond buying campaign of the previous year. Although the volume of deposit currency changed but slightly, the velocity of circulation of bank deposits shot upward from 63,

⁶ See the *U. S. Survey of Current Business*, July, 1933, p. 30.

in April, to 85 in July, 1933.⁷ This increase in velocity was reinforced by a marking up of the price of gold, an action which increased immediately and almost proportionally the paper prices of international commodities, while affecting but little the prices of articles not entering into foreign trade.⁸ The net result was that, between the dates last mentioned, the Annalist index of wholesale prices rose from 83.8 to 103.4

Just as in the case of the price level increase in 1932, business responded a month or two later with a corresponding upward movement. The physical volume of department store sales rose sharply, and mail order sales increased slightly. The number of persons on factory pay rolls and the purchasing power of their total pay both moved up rapidly. Freight car loadings, automobile production, exports, and imports all expanded markedly, and both lumber and pig iron production shot skyward. The prices farmers received for their products rose much more rapidly than did the prices which they had to pay for their purchases. In July, 1933, there was every indication that, within a few months, the depression would be a thing of the past. The fact must not be overlooked that all this occurred before the adoption of any measures designed to restrict production or raise wage rates.

That the upward movements in prices, both in 1932 and 1933, were not mere incidental accompaniments of business improvement, but were, in fact, causal forces giving rise to business activity, is strongly indicated by the fact that, in both years, business lagged a month or two after the corresponding changes in the price level had occurred. Clearly, higher prices were not due to better business. Either higher prices caused business improvement or both were due to some unknown cause. If rising prices can be depended upon to produce business activity, the question of price level control is evidently of paramount importance in those nations in which the competitive system is dominant.

That price level control is feasible and that it does have a marked effect upon industrial activity is evidenced by the foreign statistics illustrated in Figure 1. It will be observed that the dotted line representing the Federal Reserve Board index of production in the United States did not reach bottom until July, 1932, and was at almost as low a level in April, 1933. The price decline in this country did not terminate until February or March, 1933. By contrast, the downward drift of prices was stopped by Great

⁷ See data based upon reports for the banks of leading cities of the United States, including New York, compiled by the Federal Reserve Bank of New York and mimeographed for circulation.

⁸ See the paper referred to in Note 2.

Britain, Sweden, Australia, and Japan in the autumn of 1931. Instead of continuing on its downward course, production in Great Britain turned up at once, and has not since declined. In Japan also, the downward movement of production stopped in 1931, and the trend there has since been sharply upward. Records of Australian production have not been discovered by the present writer, but the tonnage of exports and imports combined shows a trend which is almost horizontal since 1930. Sweden was the only one of the four countries mentioned in which production declined until 1932. Chile began raising prices early in 1932, and production rose at once, and has remained high. The evidence indicates, therefore, that there is decided correlation between the movements of the price level and changes in production, but that the correlation is not perfect. Presumably, therefore, the regulation of the price level is an essential prerequisite for the control of business activity, but may not, in itself, always prove sufficient to accomplish the end desired. This was evidently the point of view held by President Roosevelt and his advisers when, in the summer of 1933, they sanctioned the adoption of such measures as the national industrial recovery act and the agricultural adjustment act. The first mentioned act was put into operation during the late summer of 1933. It provided for raising wage rates per hour and reducing hours of labor per week and also sanctioned agreements among entrepreneurs concerning production and prices. During most of this period, prices at wholesale continued to rise, though at a rate slower than that prevailing in the early days of 1933. This gradual rise was not the result of any further increase in the velocity of circulation of bank deposits, but is doubtless ascribable mainly to two factors: first, to the steady increase which has been taking place in the volume of deposits subject to check, those in Federal Reserve System member banks in 90 cities having grown from $10\frac{1}{2}$ billion in July, 1933 to $12\frac{3}{4}$ billion in July, 1934⁹; second, to the increase in the price of gold, a force which while at first affecting only the prices of commodities entering into international trade, has been very slowly spreading to domestic commodities as well.

Let us now see what statistics show concerning the influence of the NRA and AAA upon industry. As previously noted, the industrial effects of the sharp price rise of the Summer of 1933 extended for perhaps two months after that price rise ceased. Furthermore the National Recovery Administration did not get into full swing until the autumn of 1933. In measuring the effects

⁹ U. S. *Survey of Current Business*, September, 1934, p. 31.

of the "recovery" legislation, it therefore seems fairest to deal with the period October, 1933, to date.

The physical volume of department store trade, after breaking sharply in late 1933, has been slowly rising. Automobile production has advanced steadily. The number of persons on factory pay rolls increased for a while, but at last reports, was as low as in September, 1933. The dollar total of these pay rolls has risen materially, but their aggregate command over goods, though higher for a time, has declined to about the same level prevailing in late 1933. Prices of goods *sold* by farmers have advanced a little faster than prices of goods *bought* by farmers. Freight car loadings, electric power production, lumber production, pig iron production, bank loans, exports, imports, and the physical volume of sales by mail order houses have all either remained about stationary or have declined slightly. In September, 1934, the Federal Reserve Board index of production was 8 per cent lower than in October, 1933.

This evidence may be summed up by saying that, in urban industries, work sharing has made little or no progress, and that the total real earning power of employees in these industries, while higher for a time, has now lost all of its temporary increase. There is, then, no evidence to indicate that NRA has succeeded in enhancing the ability of urban employees to buy goods. Despite the stimulating influence of a gradually rising price level, production has made headway in practically no field except that of automobile manufacture.

The reason why it has stagnated is best illustrated by the indexes derived by the National Industrial Conference Board from United States Bureau of Labor Statistics reports.¹⁰ These indexes show that, between July, 1933, and August, 1934, in typical manufacturing industries, though man hours decreased from 62.8 to 56.0, pay rolls increased from 50.8 to 62.2. Though output per man hour fell from 154.3 to 130.4, labor costs per man hour rose from 80.8 to 111.1, and labor costs per unit of product climbed from 52.4 to 85.2. Labor cost per \$100. of gross income ran up from \$71.60 to \$106.20. If these figures are even approximately correct, it is easy to see why manufacturers have not been anxious to take on more labor. Under a competitive regime, business will not flourish when profits are absent. Furthermore, rising labor costs per unit of output mean higher prices for the finished goods, and higher prices for finished goods mean fewer

¹⁰ See the Conference Board Bulletin, October 10, 1934, p. 79.

sales, lower production, and less need for labor. So much for the effect of "recovery" acts upon urban industry.

Let us now consider the farm situation. Taxing city consumers and turning the receipts over to farmers is, of course, temporarily beneficial to those receiving the tax money, but such taxes spell higher prices for farm products, and hence a smaller volume of sales of such products. A continuation of this policy evidently means not only hardship for urban consumers but a reduction in farm acreage cultivated.

Marking up the price of gold resulted in a sharp increase in the prices of articles entering into international trade while causing little immediate change in prices of domestic articles marketed almost exclusively in the United States.¹¹ Since purely domestic prices have not risen much, the enhanced price of gold has benefited but little farmers producing things consumed mainly in this country. Growers of wheat and cotton are, however, in a different position, for their crops are exported, and hence the prices have responded to the change in the price of gold. The effect of the changing gold price has been supplemented by curtailment of acreage. Immediately, therefore, wheat and cotton producers have profited by the "recovery" program. Even here, however, there is a fly in the ointment. In the case of cotton, it is becoming all too plainly visible. The difficulty is that the higher prices for cotton have stimulated planting abroad. American cotton planters have, however, largely depended upon foreign markets to absorb their products. They are, therefore, now faced with the necessity of either cutting prices drastically or reducing total production to the amount demanded in the United States. If such a reduction is undertaken, it will mean abandoning something like half of the customary cotton acreage and either finding new employment for the displaced farmers or having them supported by the rest of the public. Either solution presents obvious difficulties.

Let us now consider the "recovery" program from a broader point of view. It goes without saying that the total income of our inhabitants is primarily dependent upon the volume of goods produced in the nation. High production means prosperity and low production means depression and poverty. Obviously, the NRA, by curtailing work at home, fixing minimum wages, shortening working hours, increasing unit costs and hence selling prices, and by encouraging monopoly has tended strongly to curtail output. Similarly, the AAA by restricting acreage, killing young pigs and

¹¹ For proof of this statement see the paper referred to in Note 2.

brood sows, and adopting other measures designed to raise farm prices has also lessened the total volume of farm produce. If economic doctrines based upon the experience of the past have any validity whatever, it is evident that measures restricting output must hamper instead of furthering recovery from the depression. As we have seen, the available statistical evidence indicates that, as a matter of fact, the industrial improvement which was progressing so rapidly in the summer of 1933, halted shortly after the so-called recovery measures began to take effect. However, advocates of these measures contend that we have been suffering not from destructive interference with productive activity, but merely from a natural reaction from the over-rapid rate of recovery characterizing the Summer of 1933. Is there any way to test this hypothesis?

One way of doing this is to see what has been happening in other countries. To make the comparison fair, it is necessary to confine it to those countries in which business has not been dragged down by a declining price level. Among countries which, like the United States, have not been troubled by a price decline in 1933-1934, may be mentioned Sweden, Chile, Great Britain, Japan, and Canada. If business trends in these countries differ from those in the United States, it is, therefore, probably due to forces other than a decline in the price level. The outstanding difference between the policies of these countries and the policy of the United States is that no one of these five nations has adopted measures radically hampering production. It is therefore of interest to see how business trends in these countries compare with those in the United States.

Figure 1 shows that, in Chile, production in 1934 has been equal to that in 1933, being but slightly below that of 1929. In Sweden, the level of 1934 production has been consistently higher than that of 1933. In Great Britain, the 1934 output has been well above that for 1933, and practically equal to that of 1929. In Japan, 1934 production has been decidedly higher than in 1933, and distinctly above that of 1929, the high point of the previous boom. In Canada, our next door neighbor, where conditions resemble so closely those in the United States, the 1933 recovery bulge in production has been well overtopped by the 1934 volume of output, employment has been materially higher than last year, electric power output has increased sharply, and carloadings are well above those for the corresponding months of 1933.¹²

¹² For data see the *U. S. Survey of Current Business*, last page of each issue.

The behavior of industry in other countries, therefore, confirms fully our inference based upon deductive reasoning—namely that, while the monetary policy of the present Administration has been highly beneficial to industry, the NRA, the AAA, and other similar restrictive measures have thwarted the natural progress of recovery, and are, in a large measure, responsible for the persistence of unemployment, for the huge burden of relief now being imposed upon the national treasury, and for the dire threat of untrammelled inflation and resulting catastrophe inherent in the present unbalanced state of the federal budget.

Despite the serious handicaps which have been imposed upon business, industrial conditions now seem to be improving—at least the *Annalist* index of business has been rising since September. How is this fact to be explained?

The answer to this query seems to be found in the record of the holdings of United States Government obligations by Federal Reserve System member banks. According to the *Annalist* of December 7, 1934, p. 807, such holdings on November 28, 1934, were \$1,600,000,000 larger than they were a year earlier. In other words, our bank deposit currency is being used by the Federal Government as a means both of obtaining credit and raising the price level. These bank deposits being newly created, are giving to the Federal Government purchasing power not deducted from the accounts of any of the citizens. To a large extent, this new money is being expended for relief, and hence is creating an additional demand for finished goods. If this process can be continued for some time without raising wage rates per piece or per hour, selling prices may catch up with production costs. Should this occur, production would increase, unemployment would diminish, and the clamor for restriction of output might die a natural death. If, however, wage costs rise as fast as the prices of the finished goods, the only beneficial effect of this new inflationary program will be to lessen the burden of fixed charges, a burden which, in numerous cases, is still unduly heavy because of the weight added thereto by the price decline of 1929 to 1933. The outcome of this latest phase of the recovery program is, of course, a matter of great importance to every American.

DISCUSSION BY ARTHUR ROBERT BURNS

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If recovery be measured in terms of an increase in the quantity of goods and services produced and consumed, some industrial recovery has occurred since the early months of 1933. Full utilisation of the means of

production is, however, still far off and production has been slowing up during the past six months. The output of agricultural products in 1934 was 22 per cent below that in 1933 and still further below that in 1932. The index of industrial production compiled by the Federal Reserve Board touched bottom in July 1932 and by the end of the year had risen some 7 per cent to 66 per cent of the average for the period from 1923 to 1925. The figures for March 1933 are too abnormal to serve as a base from which to measure subsequent changes and the boomlet of the summer of 1933 also confuses measurement. The extent of recovery is, however, very roughly indicated by the fact that the average adjusted index for the period from May 1933 to August 1934 was 82 as compared with an average of 66 for the period from September to December 1932; industrial activity increased, therefore, about 24 per cent. Between May and September 1934, however, the index declined and now appears to be rising again.

The effect of governmental attempts to foster recovery cannot, of course, be precisely measured. Apart from the inadequacies of the available statistics, any recovery that has occurred may be wholly independent, or in spite of, government action. The increase in the volume of production since the summer or fall of 1932 in many countries suggests that some measure of recovery might have occurred without any governmental action. Equipment wears out and deteriorates with the passage of time. Knowledge of new methods of production accumulates and offers increasing inducements to the reequipment of industry. Wages and interest rates fall. Even if the recovery achieved is attributable to government action, it may not be due primarily to policies deliberately aimed at recovery. On the other hand, these policies in themselves may have been more successful than the statistics suggest; their effects may have been partly neutralized by other policies, or by non governmental influences. Although complete segregation of the consequences of government action consciously aimed at recovery is impossible, some attempt to suggest the probable repercussions of such action is clearly necessary.

Increased production can be sustained only by increased spending and the principal measures consciously aimed at increasing spending are the policies of the National Recovery Administration, monetary policy, and the public works policy.

Title I of the National Industrial Recovery Act was intended to contribute to recovery in two ways: by increasing payrolls and by putting an end to cutthroat competition. The former was to increase the demand for commodities, and the latter to hearten business by removing the downward pressure upon prices. The enlargement of payrolls was initially attempted through the President's Reemployment Agreement (which resembled a temporary code of fair competition relating only to labor conditions), and, subsequently, through the minimum wage rates included in the codes of fair competition for each industry. In spite of widespread evasion of these minimum rates of pay, and of the "stretching out" and demotion of workers, factory payrolls increased, and increased more than factory employment. The index of payrolls compiled by the Bureau of Labor Statistics had been falling steadily until early in 1933, when it reached 40 per cent of the average for the years 1923 to 1925; by May 1934 it had reached 67 (an increase of 67 per cent); it has since fallen

and the preliminary figure for September 1934 was 58. The index of industrial employment, which was about 60 at the beginning of 1933, rose to 82 by May 1934 (an increase of 36 per cent); by September 1934 it had again fallen to 76. It is impossible to calculate how much of this increase in employment was due to increasing sales made possible by increases in earnings. The spreading of work resulting from the reduction of the hours of labor, and the increased purchasing power placed in the hands of farmers, and the unemployed, operated also in this direction, while the raising of prices (to be discussed below) was a neutralizing influence, as well as the government's own policy of wage cutting.

Before we condemn this attempt to increase payrolls, we must ask whether such an increase is capable of increasing spending and, therefore, production, and whether it is reasonable to expect private cooperation in such a policy. It is clear that if the increased expenditure upon payrolls is not neutralised by a reduction in other payments, or by a rise in prices, and if any part of the increase is spent by workers (rather than used to pay off debts), sales will be stimulated. The repayment of debts by workers must diminish with the passage of time. Expenditure upon salaries, the repair and replacement of plant, the purchase of materials or disbursements of profit or interest may, however, be diminished, and the effect of the increase in payrolls upon total spending thereby offset. This offset can be avoided if businesses use idle bank funds, or borrow from banks, to make the increased wage payments, and continue all their other disbursements upon their former level. Businesses and banks were urged to take this risk on the ground that their own profits would come back with the resulting increase in business activity. This argument implied that the only difficulty to be surmounted was the lag in time between the increased expenditures and the increased rate of plant operation. This lag presents a real problem but it is not the only one.

Privately operated businesses must balance against the costs of this policy its probable effects upon their separate revenues. The additional spending was to be done by workers, which means that increases in sales could be expected only by businesses supplying the commodities upon which workers spend their added purchasing power. Sales of basic food-stuffs and clothing would not be much increased, nor would those of durable producers' goods. Replacement of machines and plant would be somewhat accelerated, as well as the reequipping of plants, but major extensions and reorganizations of plant could be expected only as the volume of activity in the consumers goods industries approached the full capacity of existing plants, or as the probable sustained level of production and prices appeared to justify considerable new investment in improved plant facilities. In the consumer goods industries into which the additional spending was likely to flow, an increased rate of operation would, however, increase the contribution toward overhead costs without any increase in price, provided prevailing prices yield any contribution toward these fixed overhead charges. Increased wage rates, however, increase costs, the extent of the increase depending upon the degree in which an industry or plant is mechanised. The less the relative importance of labor costs, the less is the burden of any given percentage increase in wage rates. It is, therefore, only in a favorable combination of circumstances that individual firms can expect, within even a considerable period

of time, that the increase in labor costs can be met out of the increased contribution toward overhead costs. Firms not so favorably situated are naturally slow to reduce their liquid resources or incur increased debts to banks in order to raise wages. Banks have been unwilling to lend where the effect of the loan on the ability of the borrower to repay seemed remote. They have been unwilling to lend even to the more favorably situated firms because the probability of repayment depends upon general cooperation in the policy by other banks and business firms. The policy of increasing spending through increases in payrolls suffers, therefore, from the shortcoming that uniformity of response is difficult to achieve because of the lack of uniformity in the distribution of the benefits, except over periods so long as to involve risks that many business men and banks have been unwilling to accept. The effect of this policy is, however, also bound up with its effects upon price policies.

The National Industrial Recovery Act was also intended to restrict, if not altogether terminate, cutthroat price competition, which was regarded as a vital part of the downward spiral of deflation. To achieve this end the legal concept of "unfair competition," already expanded to permit the fixing of minimum wages, maximum hours and the employment of children, was still further enlarged. Codes of fair competition were to be drawn up and approved by the President. Conduct in compliance with these codes was, in general, exempt from prosecution under the anti-trust laws and conduct in violation of them punishable. It is commonly held that the administrator was so little conscious of the conflict between the public interest and the interests of separate industry groups, as at present seen by those groups, that he approved of codes that have permitted or induced increases in prices; these increases are said to have neutralized any tendency to increased spending resulting from the raising of wage rates and, indeed, from other governmental measures calculated to increase spending. It is true that prices have risen; the Bureau of Labor Statistics index number of wholesale prices (which had by January 1933 drifted down to 60 per cent of the level in the years from 1923 to 1925) has since risen until it is now 78 (or about 30 per cent above the low point). It is also true that this increase has partly offset attempts to increase the purchasing power of farmers, industrial workers and the unemployed. Nevertheless increased quantities of goods are still being produced and consumed. And not all the increases in prices can be laid at the door of the NRA. Increases in the price of imported goods are attributable to monetary policy; increases in the prices of farm products are attributable partly to the agricultural adjustment program and partly to weather conditions. Moreover the boomlet of the summer of 1933, which was stimulated by anticipation of increases in costs and prices arising out of both monetary policy and the recovery act, probably played some part in raising the level of industrial production in the subsequent period.

The exact relation between the policy of the NRA and the rise in industrial prices is, however, less direct than is often supposed. Only a few codes permit the direct control of output and prices (e. g. petroleum, copper, soft coal, lumber, lime, glass containers and a few others). Indirect control of total output has been achieved in a few branches of the textile industry by control of the hours of plant operation. Some 300 codes pro-

hibit sales at prices not covering the cost of production but few of these clauses have ever operated owing to difficulties and delays in securing the approval of the administration of the methods of cost calculation. Since June 1934 code rules concerning prices have been mainly confined to prohibitions upon wilfully destructive price cutting, provision for the setting of minimum prices during emergencies, and a declaration of intention by producers to set their prices by reference to costs calculated in accordance with a standardized system of cost accounting once such a system has been approved. A few emergencies have been declared, and prices, ostensibly based upon "lowest reasonable costs," have been set, but only in such industries as retail solid fuel, retail tobacco, retail lumber, retail ice, and automobile tires. The remaining two of these rules appear to have been inoperative.

The contribution of the NRA to increases in prices does not lie to any great extent, therefore, in the *direct* provisions of the codes. It lies partly in the increased costs it has imposed upon business and partly in the general encouragement it has given to cooperative action. Reductions in the hours of plant operation have increased costs in some industries and higher wage rates have increased them in many. Business men were besought to limit their increases in price as much as possible and, in any event, not to permit them to exceed the increases in their costs. The notable increases in business profits which occurred during 1933 suggest, however, that these exhortations failed to induce a universal response. According to figures compiled by the Federal Reserve Bank of New York 743 corporations that made over \$3,000 millions of profit in 1929, and practically none in 1932, made about \$673 millions in 1933. The preliminary figures recently published by the Bureau of Internal Revenue show that the profits of firms reporting profit in 1933 were \$654 millions or 35 per cent in excess of the similar figures for the previous year. The deficits of firms reporting deficits were about 30 per cent or \$2 billions below the similar figures for 1932. These profits arise, partly out of reductions in cost owing to the improvement of methods of production under the pressure imposed by the depression, and to improved rates of operation. They are doubtless in considerable measure, however, due to increases in price in excess of increases in cost (including inventory profits).

Encouragement to cooperative action has restored the "Gary dinner" to respectability. Industry groups through their codes have limited the forms of rivalry. They have sought to standardise methods of selling (including discounts), as well as service and quality competition. Evasion of collectively determined prices having thus been rendered more difficult, informal agreements or understandings concerning prices have been encouraged. The filing of prices under the "open price" clauses further discourages price cutting in many industries. Although conditions vary greatly from industry to industry, there is little doubt that competitive price determination has diminished in general importance. But not only has downward pressure on prices been relieved; upward pressure has evidently taken its place. Granted increased opportunities to limit cutthroat competition, industry groups have made no attempt to distinguish between cutthroat and desirable competition. They brought to their new task nothing more than the attitude prevalent among the trade associations during the previous twenty years. In the new situation the legal and

other opportunities for making these policies effective were far greater than ever before. These policies aim ultimately at the maintenance of prices upon a level that will secure the survival of most existing firms, a modified monopoly policy calculated to hold back increases in production. The administration, while correctly refusing to encourage destructive competition, has apparently also failed to distinguish between destructive and desirable competition. It has permitted the removal of many competitive pressures without substituting any other forces making either for efficient individual business administration or for a general price policy calculated to induce increased productive activity. It is to be remembered, however, that it has had little positive power to prevent price increases; perhaps if there had been more price fixing clauses it would have felt more responsibility and possessed more control. It is important to note, therefore, that the mere removal of the codes will not necessarily restore the conditions prevailing before the act. Even prior to the act, moreover, price competition was being increasingly circumscribed by changing business practices.

The second line of action deliberately aimed at recovery is the monetary policy of the administration. On May 7, 1933 the President announced his intention of endeavoring to raise prices sufficiently to enable borrowers in general to repay their debts in dollars about equal in value to those they borrowed; this policy was later interpreted to mean the restoration of the 1926 level of prices. The measure of success attending this policy to date is indicated by the fact that wholesale prices are now 76 per cent of their 1926 level as compared with 58 per cent in March 1933. The devices aimed at raising prices have been so often and so thoroughly discussed by specialists that no more than a general reference is called for on the present occasion. The sale of dollars abroad to buy gold at increasing dollar prices reduced the foreign exchange value of the dollar. The payment of higher dollar prices for imported goods raised some internal prices. The opportunity to sell exported goods for lower prices in foreign currency without any reduction in dollar prices might have encouraged exports and also stimulated an increase in domestic prices. But the obstacles to foreign trade have been so elaborately and effectively built up that again the reaction upon domestic prices was small. The prices of agricultural products sold on world markets did, however, rise. Finally, conditions being unfavorable to increased lending by banks, the gold imports did not result in an expansion of private credit.

Direct attempts to raise the domestic price level have taken the form of increased purchases of securities by the Federal Reserve Banks and the liberalisation of the law controlling the quantity of currency that can be issued. The increase in the holding of government bonds by federal reserve banks from \$1.875 to \$2.432 billions between March and December 1933 increased the ability but not the willingness of the member banks to lend more freely. Their excess reserves at the reserve banks increased from \$417 millions in February 1933 to \$765 millions in December 1933 and to over \$2,000 millions in December 1934. The Federal Reserve Banks have been authorised to engage in open market operations to the extent of a further three billion dollars without regard for the effect of these operations upon their reserve ratios, but this power has not been exercised, and their holdings of government bonds have not been increased

since the end of 1933. Legal authorisation to issue three billion dollars of greenbacks, to increase the issues of national bank and federal reserve bank notes and to issue notes against silver, and the increase of the gold reserve by about 70 per cent as a result of the devaluation of the dollar, make possible great increases in the volume of money in circulation. The actual circulation is, however, somewhat less now than it was in the closing months of 1932 owing to diminished hoarding of currency and the improvement of banking facilities. Thus, while the way has been cleared for a very heavy increase in bank deposits and currency, relatively little use has yet been made of these opportunities.

Increased spending facilitated by increased bank loans or currency issues would, of course, ultimately raise prices, although the presence of unemployed plants and men retards this reaction. But again, firms and industries would not benefit in proportion to the additional risks undertaken. The distribution of the benefits of the initial stimulus to spending depends upon the direction of the new spending. The effect of additional spending on payrolls has already been discussed. The less direct benefits of a general stimulation of business activity have seemed too remote and too questionable to induce banks and business men to take the risks involved. Indeed, private borrowing from member banks declined by \$3.2 billions (or 22 per cent) between the end of 1932 and June 1934. Unwillingness to borrow in spite of very low rates of interest is partly due also to the dependence of general recovery upon a speedy and general response to the increased facilities for borrowing and to the prevalence of doubt concerning this response.

Fear of the consequences of rising prices has also induced opposition to attempts to raise them. Reducing the burden of debt is a special case of the general problem of establishing relations between different prices and costs that will permit and induce sustained full utilisation of the means of production. Prices and costs vary in their sensitiveness to changing conditions and it is doubtful whether the "right" prices would move by the "right" amount. Finally it is feared that if prices were raised the rise might gain momentum and, in the extreme case, destroy the rentier class as well as impose serious, although temporary, burdens upon workers whose wages lag behind increasing prices. The Federal Reserve Board now possesses, however, a very effective instrument for controlling a general acceleration of bank lending in its power to change the legal minimum reserve ratios for member banks. But it would not be easy to decide when to stop the rise, it would require courage to stop it and it might require more knowledge than we have to stop it without causing a serious reaction. The failure of business to increase its spending out of bank loans has, however, been partly offset by government borrowing from banks which increased their holdings of government securities by some \$2.6 billions between the end of 1932 and June 1934. About 80 per cent of the decline in private loans was thus offset.

The public works program is the third line of policy avowedly aimed at recovery. In title II of the National Industrial Recovery Act Congress appropriated \$3.3 billions for expenditure upon a variety of public projects. These projects might be undertaken by the federal government or by state or other public authorities, to whom federal grants might be made up to 30 per cent of the cost of labor and materials. This policy commends

itself because it is a proposal for *actual spending* by the government, and because it directs the additional spending to the industries in which there is the greatest proportion of unused resources, namely the durable producers goods industries. An index compiled by the Standard Statistics Company suggests that the volume of production in these industries had fallen by January 1933 to about 35 per cent of the level in 1926 as compared with a figure of 80 per cent for the consumers goods industries. Although the whole of the public works fund has been allocated, actual spending was increased very slowly. It was estimated that by August 1934 only 30 per cent of all the sums then allotted had been spent¹ and by the end of November 1934 not more than 50 per cent had been spent. Activity in the capital goods industries rose to 54 in May 1934 but had fallen again by September 1934 to 42. Construction contracts which by the end of 1932 were about 28 per cent of the average for 1923 to 1925 fell to only 14 per cent in April 1933 and after rising to 57 per cent in December 1933 had fallen again by June 1934 to 26 per cent. As a means of bringing about an increase in total spending, public works have actually been tried, therefore, slowly and on a relatively small scale.

Public works stimulate recovery only in so far as they increase total spending. If increased public spending is offset by reductions in private spending the effect of public works expenditures is thereby diminished. We have seen that loans to the government from the banking system have been replacing loans to private individuals. To some extent, therefore, the effect of government borrowing has in fact been neutralized. Sales of government bonds to other than banks canalise savings back into spending. It is difficult to tell whether, and how soon, private borrowers would have brought about this result in the absence of the public works program. Government borrowing may discourage private borrowing by maintaining the rate of interest. If, however, the government does not borrow for public works, it is likely to be compelled, during the slow adjustment of private industry, to borrow for unemployment relief and thus again maintain the rate of interest. Even heavy taxation of the rich for this purpose is likely to reduce savings and maintain the rate. Private investment may have been discouraged also by fear that the government may later discover that the increased production resulting from public works expenditures can be maintained only by continuing these expenditures. Concern for the means by which the government may meet this situation is disturbing to private enterprise. This fear would doubtless diminish, however, if the increased productive activity restored relations between prices and costs favorable to profitable investment, more especially as there are considerable arrears of maintenance and modernisation of industrial plant to be made up. This fear is, however, an obstacle to recovery.

In so far as the public works funds are directed primarily to the producers goods industries they flow into industrial areas in which the greatest quantities of unemployed means of production are available. Some \$400 millions of the fund, however, have been spent by the Civil Works Administration upon projects not calculated to assist the durable goods industries. These durable goods industries are capable, however, of pro-

¹ Report of the Executive Secretary of the Executive Council, August 25, 1934.

ducing a wide range of products. To set them to work on more industrial equipment for industries already excessively equipped would be unwise. It would throw large losses on the owners of the existing plant in the industries in which the excess of productive equipment was increased. It would also prepare the way for a subsequent decline in the demand for these same producers goods. Public works cannot however, always be designed to avoid all competition with private works, and, therefore, all losses to private property owners. The most desirable of public works projects, viz., the provision of subsidised low cost housing is opposed on this ground. It is said that it will involve losses to the owners of existing housing. These fears are exaggerated in that slum clearance means a reduction in the supply of houses and improved general business conditions increase the amount of rent actually paid and diminish the burden of taxation. Some such losses may, however, occur and must be weighed against the probable resulting increase in general business activity, and the benefits to those who will be less disgracefully housed than at present. The direct benefits of public works can, however, easily receive too much consideration. The non utilisation of resources during a depression involves tremendous losses, and if these could be measurably reduced as an indirect effect of public works the indirect benefits would be out of proportion to either the direct gains or losses. Attempts to engage only in self liquidating public works in the narrow sense may be extremely uneconomic: even attempts to secure the honest disposal of the funds may involve disproportionate costs in the retardation of the general acceleration of production.

The direction of public works expenditures to the constructional industries, is, however, open to the criticism that it tends to restore these industries to profitability on their present scale although their full operation may be inconsistent with the continued profitable operation of the economic system as a whole. At the prices for constructional goods that will maintain these industries on their present scale, they can secure orders that will maintain their full operation only if there is a sufficient volume of saving. This volume of saving, however, may be inconsistent with prices for consumers goods low enough to secure full utilisation of resources in those industries. Such prices may not yield sufficient profits to permit the necessary saving. The proper size of the constructional industries depends, however, upon future changes in methods of production and other considerations the effects of which are impossible to measure.

The parts of the government program not directly aimed at recovery have, nevertheless, reacted upon recovery. The agricultural adjustment program arising out of undeniable political necessities, but resulting in the restriction of agricultural production, cannot directly induce recovery. It is obviously undesirable to restrict the output of food and other necessities at a time when there are many inadequately fed members of the community. It is far from obvious, however, that the farming community should carry the burden of supplying adequate food for the rest of the population without regard for the amount of non agricultural products the rest of the population is permitted to produce for farmers. The burden of providing adequate food is one that should be distributed over the community upon some more reasonable basis. Long run changes

in conditions of demand and methods of production also call for some measure of agricultural adjustment, but it is regrettable that the adjustment should be made during a period in which the general national income has been so greatly reduced. It is not impossible, however, that the particular method of adjustment should operate in a minor degree as a recovery measure. An increase in spending by farmers *in advance* of an increase in the price of agricultural products in the final market might provide a minor stimulus to an increase in total spending.

Expenditures upon the relief of the unemployed, on the other hand, have obviously played a very large part in maintaining the sales of many consumers goods in the face of rising prices. Between March 1933 and November 1934 these expenditures amounted to about \$1.8 billion (excluding the \$400 million spent by the Civil Works Administration). In so far as this purchasing power has been obtained by the issue of bonds, it represents, as we have seen, in part a diversion of banking resources formerly employed in financing business, and in part a diversion of savings into spending. A tendency to a reduction of spending accompanying the repayment of bank debts has been in part offset. In view of the inertia of private borrowers, government drafts upon the fund of private savings to meet relief expenditures have probably served to increase total spending in the short run.

Finally, recovery may have been affected by measures aimed primarily at reform. The requirement of a higher standard of honesty and responsibility from the issuers of securities may have obstructed private borrowing although the seriousness of this reaction has probably been over-rated. The removal of barriers to labor organization may, in the short run, disturb industrial relations and discourage enterprise.

In the absence of measures of the precise effects of the various governmental attempts to foster recovery, the foregoing general reasoning suggests that the National Recovery Act has probably obstructed recovery, although anticipation of its effects gave industry a lift which may have had lasting effects. Monetary policy has made no positive contribution to recovery and the full consequences of the public works policy are not yet visible. The relief program, on the other hand, has neutralised restrictive tendencies. The contention that recovery would have been more speedy without any intervention is impossible to disprove, but it is doubtful. Methods of production have changed so greatly during the past two or three decades that the market operates with decreasing effectiveness to induce the full utilisation of the means of production. Competition is replaced by leadership and other non-competitive devices for the control of many industrial prices. The desire for the stabilization of individual prices spreads; in consequence, changes in demand are reflected more in changes in output than in changes in price. The rate of interest operates very unsatisfactorily as a regulator of saving and investment. Departures from full utilisation of resources are, moreover, so great in times of depression that it is impossible for the state to avoid intervention to relieve unemployment. It is thereby placed under direct pressure to reduce its relief expenditures by other more positive measures to stimulate production. There is, moreover, a real danger that without effective intervention to stimulate recovery production may attain a relatively stable equilibrium without full utilisation of resources.

The major difficulty in the way of the successful stimulation of recovery lies in the unaccustomed attitudes of mind upon which it is predicated. Both before and since the National Industrial Recovery Act, it has been clear that business men have been enlarging their vision to take account of the whole of the industry in which they have been engaged rather than merely of their own firm. This enlargement of vision is necessitated by the fact that firms are often too large in relation to the whole industry for them to be able to ignore their individual power to influence the market. The inducement of recovery in the whole economic system requires a still greater enlargement of vision and this transformation we find difficult. To demand, for instance, that public works projects shall be self-liquidating is to apply a traditional standard to the borrowing of capital, but one largely irrelevant if the real purpose of the borrowing is the stimulation of general production. If the program is well timed and adequate in amount, it can yield enormous benefits in the form of greater utilisation of resources. The policy of the National Recovery Administration reveals the same difficulty of adapting our attitudes to new situations. If more expenditure upon wages without an equivalent increase in prices is in the general social interest, it is not reasonable to leave the stimulation of spending by this means to the willingness and ability of business men to respond to a governmental exhortation. General facilitation of bank borrowing is open to the same objection. Some private businesses could respond only if they deliberately placed the general public interest before the interest of their own business. Yet the success of the device depends upon a widespread and immediate response. Unfortunately we have invented no adequate means by which considerations of the remoter general consequences of individual acts can be introduced into private calculations of cost and profit, except the mechanism for agricultural adjustment and that has not been aimed at recovery. Even changes in policies of taxation and public borrowing aimed at the stimulation of recovery involve departures from tradition so drastic that they invoke fear and suspicion of failure which may well tend to increase the possibility of failure both by discouraging cooperation and by deterring an increase in private activity. Business men complain of "uncertainty" in the face of "untried experiments." Doubtless these fears would evaporate, however, in the warmth of sustained production upon a considerably higher level than at present. Attempts at recovery also induce resistance because of dislike, and even fear, of the implications of the extension of the economic functions of the state, but at this point the problem broadens out into one as much political and emotional as technically economic.

THE FARM MORTGAGE CREDIT SITUATION IN THE UNITED STATES¹

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For fourteen years farming in most parts of the United States has been in a continuous state of absolute or relative depression. Following the general slump in 1921, farming failed to participate equally with industry in the rising tide of prosperity of the 1920's. Beginning at a point in 1921, near the prewar level, agriculture was slowly regaining a condition of equality with other lines and by 1930 had nearly reached par as far as price levels were concerned. During this period, however, farming costs were rising on account of the competition of industry for labor and the increasing tax and general overhead burden imposed by a prosperous industry. During this period not much progress had been made in reducing the load of debt or in adjusting it to a more reasonable basis for service. During this period the steadily shrinking value of farm real estate narrowed the margin of equity which farmers had in their farms. The year 1930 found farming in most parts of the United States, and particularly in the Mississippi Valley, exhausted by years of depression, with depleted reserves and poorly prepared to withstand the reversal which started then and culminated in the farm credit crisis of 1933. The long depression developed the conditions which made possible and intensified the crisis of 1933.

The causes of the depression lie deep in fundamental maladjustments in our economic life, but the agricultural crisis was primarily a crisis of credit. Farming, because of its increased commercialization in recent years, contributed more to the financial crisis of 1933 than to any previous crisis in our national history.

In this paper it is the plan to discuss the development of the agricultural credit crisis of 1933 and to consider briefly developments in connection with it during 1933 and 1934, the relation of the credit crisis in farming to the financial panic of 1933, the progress that has been made in relieving the crisis and the outlook for the farm mortgage problem for 1935 and for following years.

Ever since 1921 farm foreclosures have been mounting in the

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 27, 1934.

United States. The continuous fall in farm real estate slowed up the transfer of mortgaged farms except by inheritance, foreclosure and assignment and prevented their moving into strong hands. Up until 1931 most credit agencies followed a firm collection and foreclosure policy. There was a general relaxation beginning about 1931 because of the doubtful advantage to the creditor of acquiring farm real estate and because of a rising flood of popular resistance to foreclosure. Following 1931, delinquencies began to mount rapidly and the morale of farmer debtors sank lower, continuously, in company with it. Following in normal sequence, as conditions grew progressively worse, came the pressure on country banks, increase in number of bank failures, attempted liquidation, spread of pressure to large banking centers and all the sorry train of circumstances with which we are too familiar.

A number of elements in the farm mortgage credit situation prior to 1933 now appear to have contributed to the weakness of the position and should be carefully studied with a view to eliminating them so far as possible.

They are briefly summarized as follows:

(1) Too large a participation in the farm mortgage business by commercial banks and other agencies qualified primarily to operate in the short term credit field.

(2) A general policy by credit agencies to write mortgages for too short a term and without provision for retirement of the debt.

(3) Little or no legal machinery to make possible cooperation between the debtor and creditor short of foreclosure. When a loan is obviously about to break down, there should be ways devised for coming to the relief of worthy borrowers through greater participation by the creditor in the management and operation of the farm, through opportunities for transfer and other measures of mutual benefit to both.

(4) Lack of information in the hands of farmers concerning the basis of credit, the uses of credit and the general problems associated with farm financial operations.

As the agricultural depression made continuously greater inroads into farm income, farmers learned rapidly how to accommodate themselves to it in almost all respects except in regard to fixed charges for interest and taxes. For 617 farms keeping farm financial records in Indiana in 1929, farm expenses averaged \$3,070 per farm. Of this amount, 17 per cent went for interest and taxes. In 1932, farm expenses averaged \$1,453 but 30 per cent went for interest and taxes. In 1933, because of considerable re-

lief in taxes, total expenses fell to \$1,395, of which 22 per cent went to interest and taxes. Except for these two items, farmers generally had been able to accommodate themselves to a lower standard of income by adopting a much reduced standard of spending in the operation of their farms and for their families. The point is that the depression would not likely have developed into an agricultural crisis had it not been for the tax and mortgage interest load.

The farm mortgage act of 1933, which created the vehicle through which farm credit relief would be carried to the farmer, was designed not only to relieve the mortgaged farmer, but to serve as a primary element in relieving hard pressed private credit institutions and to create a favorable environment for the general rehabilitation of the foundations of the national credit structure. Time permits only for the enumeration of the major immediate results of this program.

(1) It created a farmers' credit system, with emergency obligations, designed to bring a complete permanent cooperative credit service to farmers.

(2) It refinanced in the space of 18 months following June, 1933, approximately one-sixth of the farm mortgage debt in the United States.

(3) It relieved country banks and supplied them with cash in place of frozen assets, thus saving many banks from failure.

(4) It focused attention upon, and gave first consideration to, sore spots on the farm mortgage map.

(5) It made possible scale downs in many cases for farmers who were hopelessly involved, by providing a basis for cash settlement of claims by creditors. From June 1, 1933, through October 24, 1934, 15.9 per cent of the loans closed by the federal land banks and the Land Bank Commissioner had involved some scale down. This scale down, in the aggregate amount of \$65,789,110, amounted to 26.3 per cent of the prior indebtedness of farmers obtaining scale downs. It amounted, however, to only five per cent of the total principal amount of loans closed during the period.

(6) It apparently has checked the flight of capital from farming.

(7) It slowed down foreclosure and tempered the policies of other creditors.

(8) It reduced the interest load of most farmers who were refinanced. According to figures furnished by the Farm Credit Administration, savings in annual interest charges effected

through refinancing of interest-bearing indebtedness June 1, 1933, through October 24, 1934, amounted to 23.6 per cent of the amount formerly paid.

(9) It introduced a much wider use and more general understanding of the amortization principle and made it possible for farmers to plan their operations with greater security.

(10) Strong credit agencies have reversed their policy with respect to farm mortgage investments and are now holding good loans and cautiously making new commitments.

(11) Private capital is tending to return to farming, as shown by increased sales of farm real estate, particularly to persons other than farmers.

(12) There is a very definite strengthening in land values and an increase in farm sales in most parts of the United States.

(13) Credit relief and strengthening land values have facilitated the transfer of farm real estate into stronger hands.

(14) It developed a better understanding of the farm debt problem and resulted in a more constructive attitude on the part of creditors.

Most of the direct and indirect effects of the government's farm credit program, which have been listed, are favorable. However, many problems have arisen in connection with the program which, if not carefully handled, may serve in the long run to undo much of the apparent benefit of the program to date. The basic soundness of many of the actions is yet to be tested and final results will depend not only upon the soundness of actions already taken but on the intelligence applied in the administration of the credit program and policies. This applies not alone to the Farm Credit Administration, but directly to the entire farm credit structure, since the government, because of its dominant position, will to a large extent determine by its policies the future trend and development of farm credit in the United States. The major problems are enumerated and discussed briefly as follows:

(1) Many persons question the basic soundness of the lending policy of the Farm Credit Administration, which finally hit on a basis of valuation through a definition of "normal agricultural value" which made it possible to refinance the major portion of the distressed farm debt burden without scale down. It is argued that the farm debt problem has not been solved but simply postponed and the final loss transferred from the creditor to the taxpayer. This is the point of view of those who still cling to the "bitter end" philosophy. The program, as carried out, appears to the writer to represent a sound "middle of the road" policy

which is consistent with the money and price policy of the New Deal but places a conservative estimate on the final outcome of its price raising measures. A critical examination of the policy of the most conservative life insurance companies with respect to farm investments indicates that they are in substantial agreement with the Farm Credit Administration. However, it must be admitted that the burden of debt continues to rest heavily on the land and that if the government's goal of higher prices is not reached very shortly and permanently we may yet find it necessary to deflate the farm debt and suffer all the consequences of such an action.

(2) In the haste to develop the program, undoubtedly many farmers were refinanced who were not worthy and who will be unable to pay even with a reasonable return in farm prosperity. Only time will tell how many cases of this kind there are. Unless these cases are handled promptly and courageously they may serve as a nucleus to initiate general repudiation.

(3) Because of the policy adopted, a considerable portion of the most heavily mortgaged farms have not yet been refinanced. The percentage of farms that fall in this class varies widely in different areas and constitutes a serious problem to a final satisfactory outcome. Because of the general suspension of foreclosure these cases are still unsettled. Means should be found for settling these cases through debt composition or foreclosure. If this is not done this small minority may serve to greatly delay or finally defeat the farm credit program through keeping alive the present sentiment for extreme leniency or through political pressure for a continuation of government aid beyond the period of emergency. If final settlement of these cases is postponed until farm incomes recover, the difficulty of settling them will increase on account of the increased resistance of creditors to debt composition and of debtors to foreclosure.

(4) Many farmers, particularly those who have been refinanced with a scale down of debts, find themselves with their long term debt load greatly relieved, but without working capital. In fairness to creditors, it was probably necessary to require the debtor to sacrifice his working capital. The result was to leave the farmer in very poor circumstances to capitalize on his improved position. This condition is acute in the drouth area where many capable farmers who have been refinanced will likely default on the first installment.

Having gone so far with these farmers, it would appear to be wise to advance additional funds to make it possible for them to

operate their farms efficiently and approach the operating budget which was used in calculating the income on which normal values were calculated. Production credit loans scarcely meet the requirement since the chief security that can be offered is encumbered real estate. Creditors must realize that farmers have stripped themselves of working capital in recent years in an effort to continue the service on their mortgage loans. In most types of farming there is a close relationship between the earning power of farms and the amount of working capital. Farmers should be permitted to reaccumulate working capital and repair a badly run down plant, even at the expense of somewhat poorer collections, if these loans are to stand up in the long run.

(5) As a result of the modified collection policy of creditors and because of the generous program of the government relief to persons in distress, a very evident let down in the desire to repay debts, particularly to the government can be expected. With the rise in farm incomes must come a stiffening in the collection policy if a serious breakdown is to be prevented. The very large participation of the government in the farm mortgage field increases the danger of political interference in case such a policy is adopted.

It appears that the surest way of combatting this evil which might easily defeat the program is to rebuild into the federal land banks as soon as possible the cooperative ideas which were incorporated, in the farm loan act. Such a program would involve a prompt and extensive educational program designed to acquaint farmers with their basic obligations and opportunities in the system.

This program, if it is to be effective, must carry with it a definite decentralization of authority and must place increased responsibility on farmers through their national farm loan associations. It is not sufficient to label the land bank system as a farmers' cooperative. It must be made truly a farmers' cooperative through placing definitely on farmers the responsibility for the final success or failure of it. In the rush to expand the farm credit structure to meet the emergency the result was, of necessity, a greater centralization of authority in a system already highly centralized. Because of the government's large interest in the system it will be extremely difficult to do other than continue on this basis. If such a course is followed it will be in line with the best American tradition in which we require our cooperatives to grow under the forced draft of supervision from the top and permit them finally to die from root rot.

(6) One of the most favorable developments with respect to the farm mortgage situation is the rapid growth of real estate tax relief, partly the result of reduction in expenses of local government but chiefly through shifting the tax load to larger taxing units and to sales taxes. The long time trend for rising farm taxes has finally been stopped and taxes in most agricultural states are substantially lower. This brings immediate relief to mortgaged farmers and definitely improves the position of farm real estate and holders of farm mortgages. In 1931 the index of farm taxes in the United States stood at 238 per cent of the 1913 average; in 1932 this had fallen to 189 and it is expected that the figures for 1934 and 1935 will be still lower, since the full effect of recent tax legislation will not be felt until 1935 and later.

On farms keeping farm accounts in Indiana, taxes paid averaged \$407 per farm in 1930, this decreased to \$220 per farm in 1933 and it is anticipated that taxes paid in 1934 will show further reduction, to approximately \$200 per farm. The reduction from 1930 to 1933 amounted to \$187 per farm. These 656 farms had an average area of 194 acres and a total investment in real estate of \$12,148 per farm in 1933. The reduction in taxes capitalized at 5 per cent is equivalent to a decrease in the mortgage load of approximately \$4,000 on each of these farms. Many mortgaged farms in Indiana that have been refinanced in 1934 emerged with the annual interest and tax charge lower than the taxes alone were in 1930. Tax reforms have probably been more effective in reducing the farmers' tax load in Indiana than in many other states but the trend has definitely set in, in most agricultural states, to shift the tax burden from real estate to other forms of taxation, especially to the sales tax.

It appears to be a reasonably safe prediction that real estate taxes will not increase materially in Indiana until farm incomes have risen to a point to make such increases bearable. There may be some danger that farm credit relief may be used as a pretext for resuming heavy real estate taxation.

(7) It is to be hoped that it will not be necessary to make additional appropriations of funds to be loaned by the Land Bank Commissioner. While it was necessary to provide funds by direct appropriation in the emergency, any long continuation of the practice will involve the government so deeply in the farm mortgage field as to make its ultimate withdrawal in favor of the federal land banks difficult. Further continuation of such grants beyond the period of the emergency will be effective in deterring private lending agencies from entering the farm mortgage field,

and will increase the hazard of political difficulties and of a completely paternalistic government controlled credit system as the final outcome.

(8) Certain areas in the United States present special problems because of agricultural deterioration in recent years. This deterioration is the resultant of an original overestimate of the agricultural possibilities of the area, excessive development costs, failure of markets, protracted drought, soil depletion or erosion or the area may have been subject to more than its fair share of the incidence of the depression because of the nature of its products and costs.

These forces, working singly or in combination, have been responsible for wide differences in farm income between areas that had developed land values in the period prior to 1920 which reflected the relative earning power of these areas.

In these areas farm mortgage credit conditions have been serious and are still serious. The lending experiences of all creditors here has been unfortunate, foreclosures have been high, tax and improvement delinquencies high, penny auctions common, farmers' morale low, equipment and working capital has deteriorated, community responsibility is at low ebb and radicalism generally, is very common.

These areas are a much more serious problem than good farm areas that are suffering primarily from over-valuation of land, with normal incidence of the depression. Farm incomes in these good areas will respond quickly to a rising price level and the farm credit crisis will be quickly relieved. This is not likely to happen in these problem areas and if they are not handled intelligently they may remain to plague the entire nation and to defeat the farm credit program.

The farm mortgage debt in the United States was held by six principal classes of creditors in 1928, as follows: Individuals, 30 per cent; commercial banks, 11 per cent; mortgage loan companies, 10 per cent; joint stock land banks, 7 per cent; insurance companies, 23 per cent and federal land banks, 12 per cent.² Of the amount held by individuals, about half was in the hands of retired and active farmers.

Comparable data are not available to show the change in the amount of farm mortgage loans held by each of these classes in 1934. Farm mortgage loans held by 39 life insurance companies in August, 1934, were 15 per cent below the amount in 1933 and

² Wickens, David L. *Farm Mortgage Credit*. U.S.D.A. Technical Bulletin No. 288, p. 22. Feb., 1932.

35 per cent under 1928. For federal reserve member banks the decrease was 10 per cent in June, 1934, from 1933 and 40 per cent from 1928. For joint stock land banks the decrease was 27 per cent in September, 1934, from 1933 and 57 per cent from 1928. The farm mortgages held by the federal land banks and the Land Bank Commissioner increased 121 per cent from June, 1933, to September 30, 1934.

It now appears likely that by the time the emergency program of the Farm Credit Administration is complete, one-third, or more, of the farm mortgage debt in the United States will be held by the federal land banks and the United States Government.

Individuals and local institutions have always played a leading role in farm credit. This is the group that furnishes the credit for young men to get started or to buy additional land. They are intimately acquainted with the debtor and his problems and take relatively long chances. This is the group that suffered most heavily in the credit crisis and that has suffered most of the loss from scale downs. This disorganized group contains creditors of all kinds but it is here that most of the "Shylocks" are found. While much of the traditional conception of the hard boiled creditor developed from this group, it has and will continue to remain the chief bulwark of the creditor. These local citizen creditors will be the first to resume an aggressive collection policy and can be counted on to foster local enforcement of collections and foreclosures. They impart financial stability to the community and respect for property rights. In short they are the most rugged form of rugged individuals. This group has already shown evidence of increased activity in recent months as confidence in farming has revived. The writer is of the opinion that if it were not for these local creditors, who may appear to be unfair and uncompromising at times, that the collection problem of large non-resident corporate lenders would be a difficult one. It appears likely that the most difficult credit problems in the next few years will be in areas where there is a dearth of local credit.

It may easily be that these rugged individuals may yet pull the collection chestnuts out of the fire, for non-resident creditors and government agencies.

In the minds of those who wrote the farm loan act was an idea of continuing this local interest, knowledge and responsibility through local cooperative associations which would use federal land banks as financing agents. Through the years the federal land bank system has steadily drawn away from the original con-

ception with a continual increase in the function of the banks and a steady retreat on the part of the associations. It is possible that the collection problem of the federal land banks may be greatly simplified and that the farmers' credit can be best protected in the long run by an intelligent effort to rebuild into the system a feeling of local responsibility for the success or failure of the system in the locality.

Such a program would not involve a complete abdication of central authority. In most successful cooperatives the management is able to coordinate and develop local leadership to solve purely local problems and itself provides the leadership which coordinated the whole enterprise and handles problems of a nature common to the entire organization. It appears that the collection problem of the land banks can be handled advantageously only by localizing the problem.

Such a constructive move on the part of the federal land banks would tend to stabilize farm credit and should react in the long run to the benefit of all classes of creditors and particularly to farmers, themselves.

In closing I must in fairness to my profession call attention to the necessity for a broad and comprehensive program of education of farmer borrowers if the difficulties set out in the last pages of the paper are to be avoided. This educational program must not concern itself with the physical organization of the Farm Credit Administration and with emphasis on its size and accomplishments. The emphasis must be placed on the fundamental bases and uses of credit in farming, on sound farm financial policy, on the permanent and stabilizing features of credit, on financial responsibility, on the stockholders' obligations, opportunities and responsibilities. Finally, farmers must be taught that they have in their hands the opportunity to make and preserve or destroy the greatest opportunity that farmers in any country or at any time have ever had to secure financial independence for the industry.

DISCUSSION BY S. F. WESTBROOK

AETNA LIFE INSURANCE COMPANY

I find little with which I can quarrel in Dr. Young's presentation of the long term agricultural credit situation. I naturally approach this question from an entirely different angle than does Dr. Young and for that reason, especially because I am asked to adopt a critical frame of mind, I find myself wondering constantly whether or not his definitions and mine are the same. The time limitations imposed upon both of us

render it well nigh impossible to explore the underlying philosophy of credit and crises or of depressions. My aim during the entire agricultural depression has been to keep my definitions and consequently my thinking as simple as possible. There is always danger in oversimplification, but, goodness knows, the most simple fact, the most simple definition speedily becomes complicated when it is entangled in our modern economic profundities. Take for instance the word "credit." I like to think of the word in its generic sense—the reputation for solvency and probity which entitles a man to be trusted. I like particularly the use of the word "reputation" in respect to "a man." It says nothing about the reputation of an industry, although I am afraid that usage has inclined us to the belief that industries, as such, have reputations for solvency and probity and that for reasons well within the control of the industry, good or bad reputations may be established. It is tempting as well to take the next step in this etymological digression and toy with the word "creditor." The obsolete definition of the word reads "One who believes." Our modern technical meaning is obviously an outgrowth of the old one and while the word has come to mean only "One who has a claim," I like to think of it as meaning "One who has acted on his belief." I feel quite certain that economists of established reputations will disagree with me if I even so much as hint at there being a partner relationship between debtor and creditor, but if there is any truth whatever in my definition of a creditor as being one who has acted on his beliefs, there must be a suspicion that that creditor has made a bed and must lie in it as comfortably as conditions and his bed-mate will permit.

We could go along to a tiresome extent in this business of defining meanings of words. We speak of credit being the reputation for solvency and probity. And we speak of the creditor as one who has acted on his beliefs. Is there not food for a world of thought in the two words "reputation" and "beliefs." A man does not have a reputation unless there are other people who are qualified to judge facts or at least to receive impressions. Have those facts been judged correctly and are those impressions dependable? Likewise, are those beliefs, of which we speak, held intelligently or are they merely the outgrowth of an overpowering faith? Therefore, when Dr. Young says that the agricultural crisis was primarily a crisis of credit, I begin to look to my definitions for guidance and I am compelled to the feeling that the ultimate of all *economic* crises is a credit crisis. The reputations of so many men in the industry for solvency or probity, or both, has suffered so severely that creditors universally believe that they should refrain from further investment and should recapture their previous investment as rapidly and as intelligently as possible.

It seems sometimes as if our instincts and our intellects conspired to make actualities clash with theories. We speak of short term credit and long term credit. A common example of the former is the financing of production or inventory over peak periods. A note secured by goods is drawn for three months, at the end of which time the goods theoretically will have been sold and the cash avails used to liquidate the indebtedness. But the goods for some reason or other are not sold, or not sold for cash. In those events either the original note is renewed or trade acceptances substituted. Conceivably, this process may be prolonged until a succes-

sion of three months renewals or substitutions builds up a time element which in fact though not in theory converts the short term financing into long term. The purest example of short term credit is probably the collateral loan against stock certificates or warehouse receipts with power of attorney attached. Even such loans during boom periods become long term operations through successive renewals with the powers of attorney used finally only when it is too late and when every other similar creditor is bent upon a similar liquidating mission.

The farm mortgage loan is the example of long term financing most interesting to us and it illustrates graphically the clash between the theory and the fact. I am in entire agreement with Dr. Young when he states that one of the elements which has contributed to the weakness of the situation has been the general policy by credit agencies to write mortgages for too short a term and without provision for retirement of the debt. Whether written for five years or for thirty years, however, that allegedly long term contract became due and payable immediately upon default of any of the payments, including taxes on the land, and as a consequence of failure to pay for whatever cause, the contract became in fact (though not in theory) a short term contract of the most vicious kind and at a time when it was the least likely that the debtor could pay.

I can by no means pose as an expert in the short term credit field, but it seems at least logical that a vigorous insistence on the payment of short term debts when due would to some extent render less likely periodic and concentrated crises at times when it is the least probable that those debts can be paid. Again, without pretending to pose as an expert, it would seem that a redrawing of the long term farm mortgage contract with a more intelligent eye for facts and inevitabilities would to a marked degree forestall or prevent recurring crises during which mortgage creditors universally believe that they should refrain from further investment and should call all their loans outstanding. In that particular regard the federal land banks have contributed much constructive thought and have put into effect provisions in their contracts which should help greatly. Dr. Young has mentioned some of the facts and inevitabilities which I have in mind. In so far as the mortgage contract itself is concerned, I believe that it is necessary to provide a term of years long enough under predictable conditions to allow a considered liquidation of the debt. I believe that the instalment of principal to be paid annually should have some relationship to commodity prices. That is admittedly difficult to arrange equitably because high prices characteristically come in poor crop years. I believe firmly that the creditor should have some supervision and perhaps management rights so long as he is a creditor. I believe in most liberal prepayment privileges. I believe that loans should not be declared in default so long as the sum total of previous payments equals or exceeds the sum total of the requirements of the contract. That provision with some development of a commodity index plan for principal payments plus the long term of years should modify the harshness of the old type of loan. I have never believed that the actual rate of interest charged is an important consideration provided always that it is not extortionate. A debtor and a creditor always have found it difficult to agree on that point.

The heart and soul of the whole problem, however, is in the subject

of appraisals, which will be discussed by another group. It is only by an intelligent appraisal that the correct reputation of a man for solvency and probity can be determined and by which the creditors' beliefs can be made to rest on facts and carefully weighed opinions. Mortgage forms and terms and provisions may be academically sound and considerate, but if they are not drawn with a complete and correct comprehension of the basic elements of production, location and, if you please, personality, then it is only luck if those contracts work out successfully.

Dr. Young in discussing the Farm Credit Administration and its signal services to agriculture and indirectly to the whole country has said nothing with which I am not in full agreement. I am approaching this subject, however, from the point of view of the private institutional investor and my reactions are necessarily, but I hope nevertheless soundly, colored by that point of view. Let me first give expression to a conviction which I have often repeated. Life insurance companies, and it is only of them that I can speak with first hand knowledge, have loaned money on agricultural land for about seventy-five years. That investment until 1920 proved a most attractive one. However, its attractiveness was not the result of any carefully thought out system of appraisal or mortgage contract; it was the result during all those years of constantly rising land values accompanying the rapid development of a virgin country, expanding foreign markets and increasing domestic population. It was difficult during those years to make a poor farm loan because the mere passage of time and events rectified past errors. The increasing earning capacity of the land, together with and in a most important way, the unearned increment of the land permitted borrowers to pay their debts both current and funded. The climax of that epoch came with the war and the abnormal levels to which commodity prices rose. Coincident with that climax came the formation of the federal land banks, which provided agriculture with more than a billion dollars of long term credit. If my memory of history is accurate, the original conception of these banks was to provide this credit for sections in which private capital was not plentiful. It was patently impossible to limit lending in this way, particularly by an institution under semi-political auspices with the result that during the years 1918-1923 greatly augmented private funds, notably insurance funds, were in direct competition with this new supply. Opinions cannot differ greatly as to the effect of this upon land prices, more particularly on loan levels.

Subsequent to this injection of capital, but not as a result thereof, commodity prices fell. Farmers desperately tried to pay their debts with dwindling incomes. Lands were abused and buildings allowed to fall into disrepair. Discouragement was universal. Naturally, it was the tax and interest load which brought on the crisis. Had there been no such load, however, there would have been land abandonment because urban conditions, on the surface at any rate, were by comparison so attractive. Institutional lenders perhaps unwittingly were trying to unlearn the bad lessons of the lush years and to substitute new ways of attaining their ends—the conservation of their assets.

While I am in agreement in the main with Dr. Young as to the doubtful advantage to the creditor through acquiring farm real estate by foreclosure, at the same time there are enough instances so that they are more

than the exception where acquisition is the only solution. I need only mention land abandonment. An excessive burden of junior indebtedness, the dishonesty or non-cooperativeness of the borrower furnish other valid reasons for foreclosure. We have found many times that farms have reached an unproductive state due to the abuses which they have suffered in the desperate attempt of the borrower to extract as much cash as possible from them and due also to the fact that the borrower has not the capital with which to make necessary improvements. It is somewhat characteristic under these conditions that the borrower is unwilling to borrow additional funds even though the creditor might be willing to lend them with the inevitable result that title to the land must be taken by the creditor in order that the most may be made of the worn-out property. This has happened many times and invariably we have found that by the judicious expenditure of some capital we have been able to put the farm on a self-sustaining basis so that we can afford to carry it until commodity and land prices revive.

These instances bring up the question as to whether the position of the creditor himself may not be a potent factor in this whole foreclosure situation. Life insurance companies are peculiarly adapted to the handling of foreclosed properties. Their income is not wholly derived from agricultural enterprises. They are not compelled to sacrifice lands in order to obtain cash and they are qualified even under the strenuous conditions of the years 1930-1934 to operate lands even though the operation may cost them substantially more than they get out of them. It is a complex question and in the last analysis is a matter of judgment. Many mistakes have been made, but in the main I am convinced that if anyone is qualified to hold land for temporary operation, life insurance companies are so qualified.

I am in agreement with Dr. Young when he calls attention to the fact that the ownership of mortgages or land by short term credit institutions has contributed to the weakness of the general situation. I would include in that the individual mortgagee whose income is dependent largely upon returns from either the mortgage or the land. To a marked degree the same is true of creditors who are theoretically long term creditors, but whose income is dependent entirely upon the ability of farm mortgagors to pay their interest and who through stress of depressions threaten their creditors with the ownership of the securities. I do not include in that category the Federal Land Banks, who have, of course, what amounts to a taxing power, but even they would have difficulty in convincing Congress that they should be subsidized to the extent of making capital improvements and absorbing operating losses. I by no means wish to give even a suspicion of an attitude of lack of appreciation of what the Government's credit program has done. In the light of conditions as they developed, their achievements have been spectacular. As an administrative feat, it is almost without parallel. I do not sense, however, that the title to this discussion should limit us to the years 1930-1935. What we are all trying to do is to build a sound all-time program. The program of the Government is an emergency, remedial one. It was brought into being at a time when the industry was threatened in a most desperate way. It was imperative that the psychology of the farmer-borrower be recognized and helped. It was a panic psychology on the part of the farmer. In many instances

it was a panic psychology on the part of the creditor. The Government very soundly steered a middle of the road course. In spite of substantial scale-downs which occurred and which were not always intelligently arranged, the whole program simply accomplished the shifting of the debt from one set of shoulders to another. Encouragement was given broadly to the idea that scale-downs would occur everywhere with the natural result that a great many farmers asked for a scale-down even though they might not have seriously expected it in their own minds. The result has been in many quarters disappointment and further discouragement. While there is no doubt but that scale-downs in instances were justifiable, at the same time it could not in any sense of the term be considered a blanket proposition. For those institutions which had adequate and capable field forces there was a real chance that intelligent selections could be made. This has had its definite effect on the willingness and desire of borrowers to pay their debts and, of course, this attitude has been further confirmed and strengthened by the passage and enactment of such legislation as the Frazier-Lemke bill. The most salutary development which could take place at the present time would be an energetic though judicious collection policy on the part of the Land Banks.

In passing, I would like to comment on Dr. Young's analysis of the size of the scale-downs arranged. I assume that the figures are accurate, but I believe that the method of presenting them which he has used is the kind of a presentation which has in the past created wrong impressions and has led borrowers to believe that not only were substantial scale-downs all but promised, but that they had in the past actually occurred. A farmer-borrower might easily assume that 26.3 per cent of all indebtedness of the farmers had been written off through refinancing in the federal land banks. I suspect that even this scale-down, modest as it is in comparison with both the total principal amount of loans closed by the federal land banks during the period and more particularly in respect to the total farm indebtedness, was secured at the expense of creditors who could the least afford to grant the scale-down. This in turn has led to a bargaining process between a borrower, who had everything to gain and nothing to lose by asking and insisting upon a scale-down, and the weak creditor, who was desperately in need of cash and for that reason in a poor bargaining condition.

And again in passing, I would like to comment on Dr. Young's handling of the interest situation. I speak primarily, of course, of the life insurance mortgage investment. I seriously question whether any such substantial saving could be shown on insurance loans refinanced by the federal land banks. It has been a point which has caused unwarranted criticism of life insurance companies and which is a most difficult impression to correct. The statement has been made repeatedly that prior to the formation of the Farm Credit Administration interest rates on farm loans ranged from 8 per cent to 15 per cent, or 8 per cent and up. I cannot state whether or not that is accurate in respect to individual mortgagees. I am quite sure that the insurance mortgage investment showed a negligible amount that ran as high as 8 per cent with an average of probably somewhere around $5\frac{1}{2}$ per cent. Such insurance loans as were refinanced by the land banks, of course, carried a new rate of $4\frac{1}{2}$ per cent, but that

again was of an emergency nature and cannot be considered as a permanent solution.

I am not wholly impressed with the broad desirability of the mutual credit idea as exemplified by the national farm loan associations. Theoretically, it is a splendid protection for the creditor. I believe, however, that there is a clearer cut debtor-creditor relationship than is evidenced by distributing the credit risk in this way. It has been demonstrated that when it comes to the pinch, farmers through the national farm loan associations are either not able or are unwilling to assume this credit risk. It has the undeterminable influence of making the creditor a little careless perhaps in passing judgment on the security and the individual involved. I do believe, however, that there is a definite place in the whole picture for the strong men in these various localities. It is difficult to detect always when the features of these many governmental programs are purely of an emergency nature both as they affect credit and production, but one of the most hopeful features of the whole program has been the setting up in thousands of rural communities of local committees of trusted citizens, who for the first time are taking an interest in the affairs of the community as such, and who through the debt conciliation committees and the allotment committees are exerting the influence which they always should have exerted. It is a phase which should be jealously encouraged for it is the first and most convincing indication of a return to democratic ways. I would indeed consider myself most fortunate were I assured of the sympathetic cooperation of the strong men in whatever locality I might be loaning money or operating farms. The development of these local committees points along that way. There could be no healthier development.

If I were to arrange my rambling comments in logical order, I believe that they would follow some such continuity as this.

First, I am not in agreement with Dr. Young that the agricultural debacle was peculiarly a credit crisis. The withdrawal of credit from agriculture was the result not the cause of the debacle.

Second, the cause of this credit crisis was the fact that farmers were unable to sell their production at a price which enabled them to pay their operating expenses and overhead charges. They do not differ greatly from other institutions in that regard, although the period of unprofitable production was far longer than in industry and commerce. Until adjustments are made, it is hopeless to believe that changes in mortgage terms and policies will be of much help. We might cancel the entire mortgage debt, but unless the necessary adjustments are made in production and commodity prices time will bring about a recurrence of the same situation.

Third, steps must be taken which will enable both debtors and creditors to know on the one hand their ability to pay and on the other the true productive capabilities of the land to be mortgaged; that is, briefly, a more effective, intelligent and logical appraisal system. The Land Banks have gone a long way on this, but the subject must be explored more fully and, perhaps just as important as that, the major creditor elements must have a common point of view in regard thereto.

Fourth, mortgage contracts must be reshaped and adjusted to conform with a radically changed national situation. The subject is entirely too large for review here, but I have already indicated the main points. I am

a believer in the effectiveness of private capital within certain limitations already mentioned in the extension of both short and long term credit to agriculture. I speak primarily of insurance companies because I know the energizing effects of insurance contracts based on certain earning powers. While there is a danger theoretically that in times of short supply of capital interest rates might become extortionate, competition will regulate that to a marked extent. It may be that Government funds will provide that supply of credit when private funds are not available and to that extent at least Government funds may be desirable.

Fifth, it is obvious that trustee institutions cannot and should not attempt to compete with Government funds. Dr. Young has pointed out most effectively the dangers in that situation. The taxing power must have its effect on the human beings who necessarily must administer any governmental enterprise and there is, of course, always the political influence which is brought to bear in Government dominated corporations.

We are moving slowing and perhaps none too surely toward a general national land utilization program. We have already established the agencies by which such a program once intelligently formulated could be made effective. The organizations of farmers, not only their well known national groups, but the small local groups through the various local committees already set up under the Farm Credit Administration and the Agricultural Adjustment Administration might well be a powerful factor in cooperating with the Department of Agriculture and the Land Grant Colleges, and back of all of these stand the powerful credit agencies, of whom the Farm Credit Administration and the large private institutional creditors are examples.

It has been difficult really to criticise Dr. Young's paper. I feel that I have simply expressed the same ideas from a different point of view.

THE SHORT TERM FARM CREDIT SITUATION IN THE UNITED STATES¹

E. C. JOHNSON

PRODUCTION CREDIT CORPORATION OF ST. PAUL

The present situation of short term farm credit varies greatly in different sections of the country but in this discussion no attempt will be made to point out the conditions in specific areas. Instead emphasis will be placed upon certain developments which are of general importance.

The most significant of recent developments relating to short term credit for agriculture has been the establishment of a permanent system of short term production credit under the Farm Credit Administration. The agricultural credits act passed in 1923 resulted in the establishment of twelve federal intermediate credit banks but no provision was made at that time for organizing discount agencies to make the facilities of these banks available to the farmer. Private capital has been slow in establishing discount agencies. It is true that local banks, cooperative marketing associations and individuals have established agricultural credit corporations to make production loans to farmers using the discount facilities of the federal intermediate credit banks, but the number established has been inadequate to serve all agricultural communities and many corporations have failed to provide efficient credit service. This weak link in the agricultural credit system was remedied by passage of the Farm Credit Act of 1933 which provided for the establishment of production credit associations to make production loans to farmers.

Under the provisions of the farm credit act of 1933, the Farm Credit Administration organized twelve production credit corporations, one in each district of the Farm Credit Administration. The capital of these corporations was provided by the United States Government. Their primary function is to organize, finance and supervise production credit associations which are local cooperative credit associations of farmers organized under federal charter to provide short term credit to farmers for production purposes. About 650 production credit associations were organized. The number has been reduced to about 600 by consolidations but all the territory of the United States is now included

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 27, 1934.

in the territory of the associations. Therefore all farmers have these credit facilities available and can obtain loans for production purposes by meeting the requirements of associations. Farmer borrowers contribute to the capital stock of production credit associations because they are required to own, at the time the loan is made, B stock in the association in an amount equal in fair book value to \$5 for every \$100 of loan or fraction thereof. While in time farmers may hold all the stock, the initial capital was provided by production credit corporations through subscriptions of Class A stock in production credit associations. On November 30, 1934 the total subscribed capital stock of the twelve production credit corporations was \$110,000,000 and these corporations held \$88,115,025 in Class A stock of production credit associations. In other words, the United States had provided \$110,000,000 in capital to assist farmers in establishing a new short term credit system. The capital of production credit associations is invested in Federal Farm Loan Bonds or United States Government Bonds which are pledged as additional collateral for the farmers' notes discounted with the Federal Intermediate Credit Bank. The Class A stock paid in must equal at least 20 per cent of the loans of the association.

Production credit associations may make loans to individuals, partnerships or corporations engaged in farming. The loans must be for agricultural production and, under present rules, loans may be made for practically any purpose for which farmers may need short term credit in production operations on the farm. From the time of organization to November 30, 1934, production credit associations had closed 119,323 loans totaling \$81,911,839. These loans include crop loans, feeder loans, dairy loans, poultry loans and general purpose loans. While the total volume is not as great as may have been expected, the loans of the associations during the first year of operation have been of great aid to farmers and the prospects are for a marked increase in loans by associations next year.

The maturity of loans depends largely upon the purpose of the loan but generally no notes are taken for maturities over twelve months. Consideration is given to renewals, however, if the borrower has tried to reduce his debts, maintained adequate security and acted in good faith with his association. Practically all loans are made on a secured basis, the borrower giving as security a chattel mortgage on livestock, equipment or crops. The interest rate on the first loans made by associations was 6 per cent but this was reduced to 5½ per cent in March, 1934 and to 5 per cent

in May, 1934. The latter rate prevails at the present time. Production credit associations may not make individual loans for less than \$50 nor greater than 20 per cent of the paid-in capital and guaranty funds unless secured by collateral approved by the Production Credit Corporation, in which case it shall not exceed 50 per cent of the paid-in capital and guaranty fund. Loans in excess of the 50 per cent limit can be made only if approved by the Production Credit Corporation and the Federal Intermediate Credit Bank of the district and by the Production Credit Commissioner.

An evaluation of the production credit associations as agencies to provide short term credit to farmers must give consideration to the adequacy of the credit supply and the cost of the credit to the borrower. Turning first to adequacy of the credit supply, it can now be stated that all farmers who can give acceptable collateral and who have satisfactory credit ratings can obtain short term loans for operating their farms. Many agricultural communities have no surplus funds available locally to farmers or may have no banks to make local funds available to farmers needing credit. However, the establishment of the production credit system has broken down the isolation of agricultural communities from loanable funds available at large and, through his production credit association, the farmer now has access to the capital markets of the nation and can obtain the capital he needs for production on the farm. The funds advanced by federal intermediate credit banks to production credit associations in discounting farmers' notes are obtained by the sale of debentures to the investing public. These debentures are secured by the farmers' notes usually supported by chattel mortgages on livestock, equipment and crops, which are deposited with the farm loan registrar; in addition the capital of production credit associations and finally by the capital and surplus of the twelve federal intermediate credit banks. Being well secured these debentures command a wide market and have been sold at low rates. As long as these debentures are desired by investors, there will be a free flow of funds from the surplus capital areas to farmers who need credit and can use such funds to advantage. It should be emphasized at this point, however, that the maintenance of a free flow of funds to adequately serve agricultural communities is dependent upon a sound loan policy by production credit associations, which will provide well secured liquid farm paper as security for the debentures and thus maintain the confidence of the investor in these securities.

Closely related to the adequacy of the supply of credit is the cost of credit to the borrower. The rate of interest on loans to farmers by production credit associations is dependent upon the discount rate of federal intermediate credit banks. The margin between the discount rate and the rate on loans under present rules cannot exceed 3 per cent, but at present the full spread of 3 per cent per year is in general use. In other words, with the discount rate of 2 per cent, the borrower pays a rate of 5 per cent on loans. The low discount rate of 2 per cent now in force in the federal intermediate credit banks is explained by the strong demand for the debentures. While some increase in the rate may be anticipated when capital is attracted to a greater degree to private industry, it seems reasonable to assume that a comparatively low discount rate will be maintained by the banks providing a conservative and sound loaning policy is followed by production credit associations. An important factor which will affect the rate to farmers is the efficiency of the production credit associations. If associations can operate successfully on a margin of less than 3 per cent, the farmer could be given the benefit of a lower rate. However it is doubtful if associations can ever be expected to operate at a margin of less than 3 per cent if they are to build up a guaranty fund and eventually be in a position to pay dividends on the stock.

The income of production credit associations consists of interest on loans and interest on securities in which the capital is invested. The inspection fees are collected to meet the cost of inspection service. The 3 per cent earnings on loans should, after a fair volume of loans is obtained, carry the operating expenses of an association which include officers' salaries, clerical salaries, loan committee's and directors' fees, mileage, supplies and office expense. This leaves the earnings on securities as income to take care of losses on loans and to build up the guaranty fund for an association. Most production credit associations at present, because of insufficient volume of loans, must use at least a fraction of the interest on securities to meet operating expenses. It is expected, however, that before another year passes most associations will have loans in such amount that the interest on the loans from then on will take care of operating expenses. In some regions, particularly in areas where farms are small and where the loans average only two or three hundred dollars, it is doubtful if a spread of 3 per cent can produce the income necessary to equal operating expenses.

The restrictions on margins on loans results in inflexibility and

is perhaps the greatest weakness in the production credit system. Federal intermediate credit banks are restricted to a 1 per cent spread between the interest on debentures and the discount rates. It is difficult for an intermediate credit bank to handle small production loans at a margin of 1 per cent, with a result that it must fall back on the earnings on invested capital by the Government to meet its expenses. Similarly many associations may find it impossible to handle crop loans, where loss ratios are high, and other small loans at a margin of 3 per cent. If the system is eventually to be self-supporting and placed on a permanent basis, it may be necessary to change the laws and rules to permit production credit corporations to adjust margins on loans by production credit associations to meet the varied conditions existing in agriculture.

While the production credit system has its weaknesses, on the whole it is operating with increasing efficiency and has greatly strengthened the credit position of farmers. Loans are being made on the basis of a careful analysis of the problems of each applicant with emphasis on the use which will be made of the borrowed capital and the prospects for liquidation of the loan. Practices of production credit associations have been changed and associations can now give prompt service in closing loans. Many communities where farmers have been without short term credit facilities now have a dependable source of credit through the production credit associations. Furthermore, the associations are not deposit institutions subject to the demands of depositors and can carry farmers through periods of credit strain without forcing liquidation injurious to agriculture.

Another development of considerable importance in the short-term credit field has been the strengthening of the position of local banks. From all parts of the country reports come of increased lending by local banks for farm operations. We note increasing confidence in banks in most agricultural communities. The insurance of deposits by the Federal Deposit Insurance Corporation and the feeling on the part of many people that economic conditions are improving has resulted in a gradual increase in deposits of local banks and consequently an increase in the community's loan fund. Furthermore, the increase in prices of farm products has resulted in improvement in farm returns and a willingness on the part of bankers to again lend funds for agricultural production.

While there has been an increase during the last year in the volume of short term loans to farmers by local banks, it is evi-

dent that banks are endeavoring to follow a loan policy which will maintain them in a liquid position. Banks are discriminating carefully between borrowers and are making loans as a rule only to farmers who can classify among the better credit risks. The loans tend to be confined to financing of current operations where liquidation of the loans is possible within a period of only a few months. Very few loans are made by local banks to refinance existing indebtedness unless held by the bank itself. Ninety day maturities are common and a few notes of longer maturity are taken but usually not exceeding six months. Rates of interest on short term loans to farmers by banks are lower in most parts of the country than a year ago. In the northeastern states and the corn belt, 5 and 6 per cent are common rates; in northwestern and western states, 7 and 8 per cent prevails; and in southern states, 8 and 10 per cent and in some communities, even higher rates are charged. As security for short term loans, local banks are generally requiring a chattel mortgage on livestock, equipment or crops, but in many communities farmers who can show a strong financial statement may obtain short term credit by giving only an unsecured note.

Commercial banks, if they are to maintain a sound position, must have a loan policy which conforms to the demand deposit liability. The loans which create and support demand deposits should be sufficiently liquid to enable banks to meet these demand obligations. Therefore it seems likely that for some time at least commercial banks in agricultural regions will limit their short term loans to farmers to a class of paper where liquidation in a short period is reasonably certain. This position of local banks is supplemented by production credit associations which have no deposit liabilities and can take paper of longer term. As a matter of fact a complementary relationship also exists between local banks and production credit associations. In case a bank is faced with abnormally large withdrawals of funds by depositors, loans to farmers if properly secured may be refinanced through production credit associations and cash obtained for meeting demands of depositors. As the economic conditions of farmers improve, it is to be expected that deposits in country banks will increase and the banks placed in a more favorable position to finance farmers needing credit. Also under more normal conditions, a comparatively large part of the deposits of country banks are in the nature of time deposits, thus enabling banks to make general loans of intermediate term to finance the purchase of livestock and equipment.

Farmers are still obtaining a great deal of short term credit from merchants. As is well known such credit is expensive. Merchants selling supplies to farmers on credit must charge higher prices to cover collection expenses and losses from bad debts which means that the farmer who pays his bills promptly is in reality paying a high price for the credit obtained from merchants. It is encouraging to note, however, that in many sections of the country there is a shift away from merchant credit. Many loans by production credit associations and banks are for the purpose of enabling farmers to pay cash for supplies and get the benefit of lower prices. This development should be encouraged. Production credit associations and local banks will perform a valuable service for farmers by calling attention to the excessive costs of merchant credit and encouraging farmers to obtain funds from credit institutions for the purpose of paying cash for supplies.

A general discussion of short term farm credit would be incomplete without a brief reference to emergency lending agencies. The 12 regional agricultural credit corporations and branches, which were established in 1932 under the emergency relief and re-construction act are now in liquidation and are making no new loans. The peak of loans by regional agricultural credit corporations totaling \$158,394,374 was reached in August, 1933. On October 31, 1934, the net amount of regional agricultural credit corporation loans outstanding was \$96,914,489. An orderly program of liquidation of regional loans is in progress and many of the loans are being refinanced by production credit associations and local banks, but some loans cannot be refinanced by other agencies under present conditions and must be carried by the regional agricultural credit corporations. Emergency crop loans have been made by the government for several years and early in 1934 Congress again made available another fund totaling \$40,000,000 for emergency crop loans to farmers who could not obtain credit from other sources. These loans have been made with a rate of interest of $5\frac{1}{2}$ per cent and a first mortgage on crops as security. The maximum loaned to any one farmer was \$250. Most of these loans have been made in the southern cotton states and the northwest. Emergency crop loans made during the period 1921-1934 and outstanding September 30, 1934, totaled \$90,550,818 and of this amount \$28,643,475 was in nine cotton states and \$34,124,043 in the three states of South Dakota, North Dakota and Montana. When the drought in many states resulted in a serious situation due to crop failure and feed shortage, Congress passed an act

approved June 19, 1934, which made \$525,000,000 available for relief in the stricken areas. These funds which are allocated by the President are to remain available until June 30, 1935. A substantial part of these funds have been used for loans to farmers in the drought areas for the purchase of feed and growing of forage crops. The loans are restricted to farmers who have no other source of credit and provide for a maximum allowance per month per head of livestock. The rate of interest on emergency feed loans is $5\frac{1}{2}$ per cent. The borrower's unsecured note is taken but if the livestock is encumbered the lienholder must sign a non-disturbance agreement.

We have in this country a large class of farmers who are so heavily involved financially or who have such limited resources that they cannot obtain credit from local banks or production credit associations. To a great extent this is the class of farmers who have obtained aid by emergency crop and feed loans. The serious drouth which this year extended over most of the middle west, the southwest and the great plains area has increased the number of farmers dependent upon emergency borrowing and there will be a great demand for emergency financing in these areas in the spring of 1935. While emergency financing by the Government is justified to assist farmers who are temporarily in a position of distress due to crop failure or abnormal economic conditions, one may question the wisdom of extending emergency credit year after year to farmers in some agricultural areas. The need for such financing year after year suggests that the agriculture of the region needs reorganization or perhaps that the land should not be in cultivation for crop production. In such regions, collections are practically out of the question and emergency loans may become essentially advances for relief. Therefore such advances probably should be made as relief and not as loans which increase the debts of farmers already insolvent or practically so, and major attention given to the problem of rehabilitation of the farm families. This may involve moving families into better agricultural areas or into industries which again presents social problems of such consequence that they cannot even be referred to in this brief discussion.

One of the great problems confronting agriculture today is that of reducing the burden of debt. This fact is recognized by the rank and file of the farmers. True, there are present in any class of people those individuals who never give serious consideration to repaying of debts and therefore are likely to obtain by credit any funds possible, but the better class of farmers today seem

to think twice before they borrow money. In other words, most farmers are giving serious thought to the problem of whether or not they can use borrowed funds productively and thereby be in a position to repay the obligation when due. Unless the funds can be used to advantage they do not care to borrow. The exception to this attitude is found among the farmers in severe distress areas and regions where farm debts are extremely large. There an attitude of unwillingness to seriously recognize financial obligations may prevail along with a refusal to sacrifice in order to meet such obligations.

Farmers, who are cautious about borrowing unless the funds can be used productively, are encouraged in their attitude by the practice which is followed by production credit associations and, to an increasing extent, by local banks of analyzing the farmers' business carefully before granting a loan. A conservative loan policy on the part of these agencies, which is based upon an investigation of the use to be made of the funds and the prospects for repayment of the loan when due, will do much to improve agriculture. In former years liberal credit, granted without proper analysis, resulted in uneconomic use of the resources of many farmers and failure for many. A conservative loan policy based upon an understanding of the agricultural possibilities of the region and an understanding of the problems of the individual farmers should tend to improve conditions for many farmers and result in a more stable agriculture.

DISCUSSION BY WOOD NETHERLAND

MERCANTILE COMMERCE BANK AND TRUST COMPANY, ST. LOUIS

Since the most recent development affecting the supply of short term credit for agriculture in the United States is represented by the production credit corporations and their subsidiaries, the production credit associations, acting in conjunction with the federal intermediate credit banks; and since this system is now the dominating influence in its field, this short commentary on Dr. Johnson's paper relates largely to the status of short-term farm credit as affected by these organizations.

While the general structural form of the production credit association does not represent a new idea in principle, the exigencies of the times undoubtedly brought it into being on a wide scale at an earlier date than would have been probable under normal conditions, if at all.

The reputation for the efficient manner in which this system has been initiated, will not be injured in the least by a discussion of some of the hazards of short term farm credit. These hazards are probably already recognized by those who are most interested in its administration. Movements of such magnitude and importance do not spring forth in a perfect

state but must be refined and altered as experience and circumstance point out the wisdom of change.

It should be recognized that these corporations are dealing exclusively with a clientele, the members of which are now and have been operating for most of the last twenty years, at an economic disadvantage. It is not within the province of this commentary to lament the prolonged disparity that has existed between the prices which the farmer has received for the things he has had to sell, and the prices he has had to pay for the things he has had to buy, but it is very pertinent to point out that any credit institution which deals exclusively with such a group, of whatever vocation, has a far more difficult problem than a credit institution which is in a position to diversify the character of its risks. Moreover, it is not too much to say that no credit system, public, private, or co-operative, can make an outstanding success of handling short term farm credit at low interest rates for any considerable length of time, without some sort of subsidy, until the farmer's dollar has been restored to, and maintained at, par. Those charged with the operation of this system have a most difficult task to perform in order that the cost of this subsidy be kept at a minimum until such time as the system becomes self-supporting, particularly in view of the pressing need of the public treasury at the present time.

It would have been most fortunate if this system for short term credit could have been launched at a time when emergency loans were not the order of the day, for, notwithstanding the earnest efforts put forth to educate the general public along proper lines, we need not lull ourselves into the conviction that these obligations are regarded in the same category as private debts by all who avail themselves of this service. Granting that by far the large majority of borrowers have a wholesome respect for their commitments, it is that small minority which takes advantage of a tolerant administration to prolong the task of those in charge as they try to bring the system to a self-supporting basis.

As pointed out by Dr. Johnson, private capital has been slow to establish discount agencies since the intermediate credit banks were organized in 1923, largely because stock ownership in such agencies proved to be unprofitable. It is therefore a bit difficult for me to see how the fact that this stock will be held by borrowers eventually can materially change an experience which actually has been proved unsatisfactory.

Prior to the establishment of the production credit association as we now have it, many agricultural credit corporations were operating on substantially the same principle; that is to say, there were many corporations in which borrowers were required to take stock in prescribed ratios when obtaining loans. It is a significant fact that these corporations, for the most part, were less successful than those that were "privately owned," for in the latter, the parties at interest did not occupy the dual position of stockholder and debtor. The situation above referred to is not peculiar to agricultural credit nor unlike that which existed in many commercial banks wherein stockholder borrowers used their power and influence as stockholders to force indulgence on the management in the matter of loans to the detriment and oftentimes destruction of the institution.

Out of this experience both in private and in co-operative credit ventures, one is not yet ready to say that the stock ownership of a credit

institution should be vested in those who borrow from it. Little elaboration is necessary to understand the full implication of such a statement. It is sufficient to point out that the management of such an institution in addition to the struggle with adverse economic forces, is often restrained from pursuing sound credit policies by borrowers who are likewise owners, and are thus in a position to force more lenient administration.

Your particular attention is directed to the discussion by Dr. Johnson of the subject of discount rates. His discussion is so complete as to necessitate little amplification. Taking for granted that all other features of the setup are satisfactory, the ultimate success of the system will depend on whether or not the margin of profit is sufficient to pay expenses, accumulate reserves, and provide a reasonable return on the investment. Interest rates, after all, have a way of adjusting themselves to a basis commensurate with the risk involved, and if the return is not sufficient, the supply of available credit will eventually cease. Nor can this fundamental fact be changed for any considerable length of time by government fiat, even with the support of unanimous public opinion.

On this question of interest rates, so-called one cent foreclosure sales, state moratorio, the Frazier-Lemke bill and all such movements designed to give relief to hard pressed debtors operate inevitably to increase cost of farm credit, as a matter of fact drive many private sources of credit entirely from the field. This is not to debate the social necessity of such measures, but suggests that temporary expedients after all may often prove too costly in the long run.

In commercial and industrial credit, it has been found that if an adequate supply of credit is to be available to the small borrower, or if undue risks are to be assumed, the revenue therefrom must be in keeping with these factors. Whatever may be our views as to the social aspect of the high cost on small loans, the public has recognized the practical necessity of such costs as evidenced by state laws permitting such practices. It goes without saying that the recognition of this situation does not at the same time condone unconscionable practices such as were once inherent with respect to merchant credit, as mentioned by Dr. Johnson. These practices too, eventually ran up against the law of diminishing returns and proved to be a boomerang in many sections of the country.

Careful consideration, therefore, should be given to Dr. Johnson's suggestion that there be permitted a greater degree of flexibility with respect to the charges made both by the production credit associations and the intermediate credit banks, for as he points out, if the system is to be eventually self-supporting, each transaction should at least pay its own way.

Now let us turn to Dr. Johnson's statement: "—— the establishment of the production credit system has broken down the isolation of agricultural communities from loanable funds available at large, and through his production credit association the farmer now has access to the capital markets of the nation and can obtain the capital he needs for production on the farm."

This, perhaps, is the outstanding accomplishment of the system to date. The country bank situation for the past few years is too well known to take the time for discussion. How the production credit association and

the agricultural credit corporation stepped into the breach and provided short term farm credit during the emergency when all other sources had dried up, is a matter of history. This record alone is sufficient to have justified their existence whatever may lie ahead. There is no romance of modern business more interesting than the performance of these institutions during those critical times.

Serious consideration, however, should be given to the question as to whether or not the local country bank and the production credit corporation should permanently exist side by side where the needs of a given community can be adequately supplied by one or the other. In such a situation, competition for loans is bound to thrive, thus bringing about a similar unhealthy situation which was no small contributing factor to unsound credit practices of country banks in the past. Moreover, it is quite obvious that the overhead cost of more credit organizations than are necessary, must eventually be reflected in increased cost to the farmer or to the taxpayer. It would therefore seem quite the part of wisdom to explore the possibility of some new and improved form of relationship between banks in rural communities and the Federal Intermediate Credit Banks. It is my conviction that if appropriate legislation can be enacted at the proper point in the recovery program permitting a country bank to allocate a certain portion of its capital structure to the support of a department engaged exclusively in the business of granting production credit, and segregating such operations from the usual category of unlimited liability, a great forward step will have been made, toward a solution of the problem of short term farm credit and the country bank situation as well.

In this commentary I have so far eliminated reference to the emergency or so-called feed and seed loans, largely for lack of any fixed idea as to their value. Certainly they possess few attributes of sound credit, have a very disturbing effect on credit practices as a whole and on government-sponsored institutions in particular. They furnish a very fertile field for political intrigue which is one of the greatest handicaps with which to cope in an effort to serve in a public trust conscientiously, honestly, and efficiently. Such loans may have served a useful purpose. Let us hope they have; but should both the economic and political situations reach a point where they could be dispensed with, it would be a consummation devoutly to be wished.

My instructions from Dr. Myers read as follows: "It is expected that after you have seen Dr. Johnson's paper you will discuss those points in Dr. Johnson's paper with which you are *not* in agreement, and that you will supplement his paper with additional information you feel should be presented." I have endeavored to do just that. I have refrained from commenting on the many splendid features of the production credit set up, but have attempted to foresee some of its difficulties. If country banks have failed to provide ample short term credit at any time in the past, most of the deficiency, in my judgment, may be charged to the economic handicap under which our farmers labored rather than to lack of inclination or effort on the part of country banks themselves. It is too early to say that the production credit association will do the job better.

Accepting at face value the statement of the President that the Govern-

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ment will retire from business as soon as private industry can take over the job, certainly if rural communities are to enjoy banking facilities in the future, it would seem the part of wisdom to orient our commercial banking structure so as to have the rural banks perform this important function of our rural life. It is both logical and economical. It is my feeling that they will fully measure up to their responsibilities when Agriculture has been restored to its rightful position in the economic scale.

FARM DEBT ADJUSTMENTS¹

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Voluntary farm debt conciliation activity as a nation-wide program had its beginning in October, 1933, when a telegram was addressed to the governors of the several states by the Governor of the Farm Credit Administration, suggesting that in each state a committee be constituted by the Governor to give attention to the conciliation of distressed farm debts. As an aid in promoting constructive plans of action letters were immediately sent to agricultural extension directors, state and national officers of the American Farm Bureau Association, masters of state Granges, and other agricultural leaders as a means of securing wide support for the voluntary program of farm debt adjustment. Inquiry from the state governors made it necessary to offer suggestions for the organization of the work and to establish policies for its guidance. The responsibility for this activity, however, was accepted by the governors of the several states.

Objectives of the project. The central objective of the voluntary farm debt adjustment work as sponsored by the Farm Credit Administration was to secure in distressed farm debt cases as large a measure as possible of social and economic justice for both the farm debtor and his creditors. This did not mean protecting the debtor who has used the depression as an excuse for sharp practice, neither did it mean the scaling down of any reasonable indebtedness, nor did it deny the right of the creditors to the debt due them. However, it did bring into question the social right of creditors to demand full pay or to take over mortgaged property at a time when the debtor's inability to pay was due to price and climatic conditions beyond his control.

Methods of Organization. Through correspondence, mimeographed suggestions, and conferences, assistance was given to the several states in the selection of state committees, variously called state agricultural conciliation committees, state farm debt adjustment committees, or agricultural advisory committees. Representatives of the Farm Bureau, the Grange, Farmer's Union, other agricultural organizations, the state agricultural

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 27, 1934.

² In charge of Farm Debt Adjustment Project for the Farm Credit Administration, October, 1933, to September, 1934.

colleges, the agricultural press, state departments of agriculture, insurance companies, banks, mortgage companies, and independent farmers, indicate the interests of men found on most of the state committees. Usually these state committees accepted the responsibility of recommending to their respective governors suitable personnel for county committees, commonly of five members for each county, to be appointed by the Governor. State committees have been active in providing information and guidance to facilitate the uniform handling of debt cases, and in serving as a contact between county committees and the Farm Credit Administration or creditor interests.

As a result of the organization work, 44 states now have a state organization dealing with the farm debt problem. All but four states are following the uniform plan. There are now about 2,600 county farm debt adjustment committees organized out of a total of about 3,000 agricultural counties in the United States. As these committees view their task it is to settle out of court those debt difficulties for which neither the farm debtor nor his creditors are responsible, difficulties resulting from the price situation over which the individual has no control, except as he cooperates with his fellowmen on a nation-wide scale. After having met many of these committees I know a remarkably good job has been done in most instances in selecting men who command the good will and confidence of both the debtor and the creditor group. Generally they are men who have established by their own actions a reputation for being fair-minded and of judicial temperament, who want to know the facts, and who will reach unbiased conclusions. They are men who are willing to give unselfishly of their time for the good of their fellowmen and their own community. Nationally it is a fine thing to call forth and develop in every community of the country the social spirit required to accomplish, on a voluntary basis, the service which many committees have already rendered in rehabilitating worthy farm debtors. Although these committees have no legal status, it is a tribute to the members of hundreds of them that they have been able to bring about acceptable settlements between thousands of farm debtors and their creditors because of the fair attitude taken in suggesting the settlement of distressed debt cases.

The Problem. Foreclosure action and debtor complaints indicated the severity of the farm debt situation. The difficulties became more apparent, however, when the federal land banks made thousands of commitments for federal land bank and commissioner's loans where the maximum the bank could loan was insuf-

ficient to meet the debtors' obligations. In establishing the basis for a farm debt adjustment program, therefore, it was important that no misconceptions exist regarding either the extent of farm indebtedness or the rights and conditions of both the debtor and creditor groups.

Approximately half of the farmers of this nation who own their homes have no mortgage indebtedness. More than two-thirds of the mortgaged farms have an indebtedness that would not be burdensome with a return to the pre-war price level for farm products and comparable costs of production. For this majority of all farmers it is imperative that the past credit reputation of agriculture be maintained. There are on the other hand, however, many farms carrying an indebtedness that would be considered burdensome even with a return to the pre-war price level. The burden to both the individual and the community in many instances arises from the fact that owing to the several years of deep depression there has been an accumulation of unpaid taxes, interest, principal payments, notes, and open accounts which would normally have been paid off currently from the income of the farm. This type of indebtedness cannot be paid off as promptly as creditors would like, and all too frequently ill-considered action on the part of any one of several creditors may plunge a worthy debtor into the courts at a time when he is helpless to protect his financial interests. Nor should we overlook the fact that some creditors need money quite as badly as their debtors. There are numerous cases growing out of all kinds of situations that have no satisfactory solution in the minds of either honorable debtors or fair-minded creditors. It seems clear, however, that if the legal rights of the creditors were exercised in all delinquent debt cases it would have a demoralizing effect on land values, on the morale of the debtors, and community values. The problem is to determine what is the best solution, on the basis of the conditions pertaining to each separate debt case.

A few facts make clear how the situation has developed. While the prices of farm crops rose to about 2.3 times as high in 1919 as they were from 1905 to 1914, farm-mortgage debt and taxes increased in proportion and land values rose to 1.6 times pre-war average for the nation as a whole. The trouble, however, developed when crop prices not only receded from the 1919 level, but in 1931 actually fell below the pre-war level. The mortgage debt continued to rise to nearly three times the 1910 debt and would have exceeded that amount except for farm foreclosures and the voluntary deeding of property to mortgage creditors.

It is only recently that taxes have been reduced, while land prices have fallen below pre-war levels, destroying the equity of many capable farmers who were innocent victims of the worst depression since the investment in farm property has become large. Our sympathy for the debtor, however, must not keep us from seeing the entire problem.

We must not be unmindful of the creditor interests. Distressed farm mortgages represent savings invested in life insurance policies, bonds, and bank accounts, while junior liens and unsecured debts represent credit and service extended to farmers by the local merchant, the doctor, and frequently other friends whose resources have been depleted because they rendered services for which the farmer has been unable to pay. Additional credit extended by local unsecured creditors frequently made possible the payment of interest on mortgage indebtedness which otherwise would have gone unpaid. In fact, in summing up creditor and debtor relationships, one might almost say that in so far as you and I are owners of mortgaged real estate on the one hand and have insurance policies, bonds and bank deposits on the other hand, we as debtors are our own creditors. At least, in simple terms, any community group should be creditor-minded as well as debtor-minded.

A few acts of creditors that have made desirable the focusing of attention upon more equitable adjustment of farm debts, include: the foreclosure action by a single company upon more than half of the foreclosed farms in some of the best corn-belt counties where heavy foreclosure action has taken place, the taking of more than 25 per cent of all foreclosure action in a single state by a single creditor institution when their loans in no wise represented such a proportion of all loans, the wholesale securing of deeds to property under threat of foreclosure action, and the foreclosure during the depths of the depression by correspondents of live insurance companies on second mortgages given as payment of commissions for making the farm loans. These are only samples of unwise practices which if followed by all creditors might have led to action akin to revolution and loss of faith by borrowers in private and corporate creditor agencies. It is the writer's belief, however, that less than 10 per cent of the creditors deserve severe censure for their recent acts and it may be added that there have been many converts to a more liberal policy during the past year. If certain current practices are persisted in by a minority of creditor interests there may yet be justification for equitable Federal legislation which avoids the

weaknesses of the Frazier-Lemke amendment to the federal bankruptcy act but which will protect debtors from unscrupulous creditors and individuals willing to make personal gain through legal action against another who is in distress. It is not the purpose of this discussion to emphasize abuses to debtors but merely to call attention to conditions justifying organized effort in securing debt adjustment.

The Frazier-Lemke amendment to the federal bankruptcy act probably owes its enactment largely to unfair practice on the part of a minority of creditors who have used sharp practice in dealing with worthy but delinquent borrowers. Objectionable creditor action, however, was so frequent as to make it probable that every member of Congress from our important agricultural sections knew of some reprehensible creditor actions in his own district.

Now we turn in our thinking to the best type of distressed farm-mortgage debtor facing foreclosure or other court action, should his creditors exercise their legal rights. Frequently this debtor is one of the most capable farmers of his community. He may be in trouble because he was thrifty enough to have saved enough money five, ten, or fifteen years ago to make a substantial payment on the purchase of a farm. A large proportion of distressed debt cases arise with men who are at the prime of life and should be serving as the substantial leaders of their communities. Taken as a group, probably four out of five of the distressed debtors are capable farmers who will pay more to their creditors over a period of years than the average tenant farmers who might succeed them in the event their creditors resort to foreclosure. Furthermore, such debtors, if they remain as title holders of the property although under a heavy indebtedness, will do a better job of farming than would tenants. This is the general character of the situation that makes the entire program of voluntary farm-debt adjustment so fundamental to the future of the community and nation as well as to the parties to the debt.

One might well inquire what would be the situation if the distressed debtor loses title to his property. If foreclosure is taken by an institutional creditor it usually means burdening a farm with court costs covering foreclosure action and placing the farm under the supervision of a field force who will place a tenant upon it if it is not immediately sold. Past experience makes clear that an incoming tenant will not give the same care to the property that most title-holders will give and the creditors, in final analysis, whether they are beneficiaries of a life insurance policy,

bank depositors, or holders of bonds are not apt to receive as much in net income from that property as they would if it were left in the hands of the title holder. If prices improve this debtor, if honest, will stand as good a chance of paying off his indebtedness as will a new purchaser who may be permitted to pay down a ten or fifteen per cent payment on the purchase of the farm with the price set high enough to cover all legal costs and other expenses which the institutional creditor feels justified in adding to the cost of the original mortgage which has been foreclosed. Or, if the creditor considers securing title to a property and selling it for less than the full amount of the debt, there should be some means of leaving it in the hands of the debtor if he is an honorable, capable farmer who has already lost his equity represented in the purchase price of the property less the mortgage debt.

A careful study of a distressed mortgaged farm situation may therefore lead many creditor interests, when properly guided, to decide that in many instances the present occupant of the farm may be the best person to continue in possession, operating it under a carefully prepared agreement between the debtor and all of his creditors. Experience indicates that the debtor and creditor interests both find it difficult to reach an agreement, and especially is this true when several creditors are involved with the same property. Unfortunately, legal help frequently does not facilitate amiable settlement. This helps to set forth the need of some voluntary, unprejudiced, disinterested middle party who can serve in the capacity of a mediator in bringing together the debtor and his creditors to secure a fair settlement. The need for voluntary farm debt adjustment arises from the fact that no two farm debt situations are alike, and that every farm debt case must be handled on its merits. Farm debtors themselves no doubt would agree to this statement. An intermediary body may avoid hasty, ill-advised court actions on the part of over-anxious creditors. So often it is hasty action that brings on expensive court proceedings and the distress which accompanies such action. Naturally, the creditors must be the aggressors in protecting their interests. They should, however, weigh any action they propose to take against a particular debtor from the standpoint of what would be the result if all creditors took similar action against their debtors. This suggestion would not bar foreclosure action where justified, but it should be good reason for saving title to their homes for many worthy debtors who have been unable to keep current their financial obligations.

Some debtors cannot be saved, even under normal price conditions, when they have committed themselves unwisely or have indulged in unfair practice with their creditors. In the interest of social and economic justice for both the debtor and his creditors we want only fair treatment of the worthy debtor who is a capable farmer. While this may appear to be largely a "Golden Rule" approach to a serious debt situation, the Golden Rule answer is often the same as "intelligent selfishness" for the creditor who is unwilling to be guided by golden rule principles. It seems fair to point out that debt distress has in many instances arisen from the failure of the creditor as well as the debtor to properly appraise the debt-paying capacity of the farms under mortgage. The responsibility in such instances should be mutually accepted.

The following are some of the ways in which county farm debt adjustment committees have functioned:

- (1) To give friendly, reliable information and counsel to both debtors and creditors. Too frequently a debtor broods over his difficulties instead of seeking effective relief, or if he seeks advice he too frequently is advised unwisely.
- (2) To work out agreements enabling worthy farmers to remain on the farm, instead of losing hope and deeding the farm to the creditors. Creditors generally do not wish to take title to a debtor's property, although a few use unfair coercion to get debtors to give up title.
- (3) To aid in stopping unnecessary foreclosure, while recognizing that some foreclosures cannot be avoided in the best interests of all parties.
- (4) To assist debtors and creditors to compose the debts in the form of a loan which the debtor has a reasonable chance of carrying.
- (5) To suggest an extension agreement which will, in a sense, "freeze" the debts, pending further settlement, but require that the debtor pay currently a reasonable amount such as a fair rental. Such an agreement may be the fairest solution of many distressed farmers' problems and may insure the most effective operation of the farm until such time as the future level of prices may be more definitely known.
- (6) To assist closed banks to make an equitable adjustment of farmers' debts for the best interest of bank depositors and the indebted farmer.
- (7) To guide debtors and creditors in taking the best court procedure when legal action appears to be the best solution. Few people are well informed, especially with regard to the provisions of the revised federal bankruptcy act which permits equitable adjustments without the debtor being adjudged a bankrupt.

The farm debt adjustment committees if continued and given proper encouragement should be a potent force in rebuilding the needed morale with regard to both the financial responsibility of debtors and a liberal attitude on the part of creditors relative to enforcing legal claims at a time when so many debtors are help-

less. They should be an aid in maintaining the credit rating of the community.

A debtor should be made to feel that if he fails through his own improvidence after a careful adjustment has been made through the efforts of the farm debt adjustment committee, the committee will afford him no further adjustment opportunity. In fact, the continuing influence of the local committee should be to keep before the individual debtor whom they have aided, his responsibility for meeting his personal financial obligations in an honorable manner, and to encourage the development of a spirit in many debtors of wanting the right to pay their debts in so far as they have the ability. The success which has attended the federal program of farm refinancing and debt adjustment places a responsibility on state and federal governments of building in debtors a strong moral regard for financial obligations.

The voluntary farm debt adjustment program is intended to help capable farmers who are worthy debtors to retain title to their farms and homes on a basis which is equitable for their creditors as well as for themselves.

For such debtors the plan may be said to be a two-point program: that is, to effect either a composition or an extension agreement.

It is desirable, from the standpoint of a debtor who not only has a heavy mortgage indebtedness, but also an accumulation of minor debts, to effect a composition of all existing debts and to bring them under a single loan. This may be done with loans obtained from the Federal Land Bank, including the commissioner's loan, or from an insurance company, a mortgage company, or any other agency or individual willing to combine all of the existing indebtedness into a single debt. At the present time, there is little question but that the Federal Land Bank through a first mortgage loan and a commissioner's loan will lend a larger amount on farm property than will any other agency. Frequently a marked "scaling down" of existing obligations will be required in order to bring all the debts down to a safe loan. Many creditors would prefer to get a part-cash settlement for these debts rather than to await the uncertainty of their full payment at a little later date, especially is this true of minor creditors. Where the debtors and creditors agree that this is the best way out, a composition of all the debts in this way should be attempted. Many times the cost of foreclosure action if avoided and used to effect a voluntary settlement will do much to satisfy minor creditors.

Frequently creditors would prefer to accept suitable types of extension agreements rather than to scale down their indebtedness. Extension agreements may not provide for final settlement but may provide for the debtor's carrying on during the period of recovery until he is again able to assume his indebtedness and meet currently the payments called for in his mortgage. A not uncommon form of extension agreement is to carry on with the debtor if he is able to maintain his current interest payment although he is delinquent, or even to pay over annually a fair rental on the property. Creditors generally have not given enough attention to suitable extension agreements which will protect their own interests but which will give the worthy debtor an opportunity to rehabilitate himself.

The real reason for emphasizing the adjustment of farm debts so the annual debt burden will be in accord with farm incomes is that it is doing a debtor no service to ask him to assume an indebtedness which will be impossible for him to carry. It clearly was not the intention of Congress that the federal land banks should relieve all debtors by lending them sufficient to pay off their creditors. The maximum loans made by the federal land banks usually represent as heavy a mortgage debt as a man has a reasonable chance of repaying. A most important point to recognize is that if a farmer is forced to use every possible source of income to meet interest and operating expenses, he will be unable to maintain the productivity of his farm, he will not have a good standard of living for his family, and he will not be much aid in the plans for national recovery if he is not a normal buyer of goods and services.

Summary of Accomplishments. The work of any one of hundreds of county farm debt adjustment committees would make an interesting account of constructive accomplishment. It is necessary to sit in hearings held by committees to fully appreciate the far-reaching results of their work. The typical committee is not, in any sense, pro-debtor in its attitude. Representatives of creditor interests have stated that the committees have secured a more favorable settlement for them in many instances than they would have been able to accomplish in cases where a number of creditors are involved. Not infrequently debtors are advised to submit to foreclosure action.

Reference to the farm debt adjustment work in a few states will help show its scope. The project was organized in Ohio prior to its establishment at the instance of the Farm Credit Administration, and there it is reported that more than 4,000 farm debt

cases have been settled by committees. Likewise, in Illinois more than 3,000 farm debt cases have been reported settled by the committees, involving an indebtedness in excess of 30 million dollars since the project was inaugurated about two years ago. At the present time the county committees are getting definite settlements on about a million dollars of debt each month in addition to those which are settled privately after securing some advice from the committees. While the organization in Wisconsin differs in that a number of fieldmen are employed by the state to assist in the local adjustment of farm debts a recent report shows the actual settlement of 3,615 cases involving an indebtedness in excess of 26 million dollars. Kansas was one of the earliest states organized with the aid of the Farm Credit Administration, and while relatively little supervision has been given to the committees, the report as of December 1, 1934 shows that the committees have settled 1,767 cases, and that the results had been so promising that new plans were being developed to further the work of the committees.

The Yakima County, Washington, committee has set the high mark of accomplishment with more than 600 settlements accomplished up to the first of September, involving an indebtedness of more than two million dollars in a single county. In a number of states the farm debt adjustment organization was perfected too recently to permit an adequate statement of accomplishment.

For the country as a whole it appears conservative to say that in excess of 30,000 farm homes have been saved through agreements which county committees have effected, involving an indebtedness in excess of 150 million dollars. Reports from state and county committees are incomplete, but sufficient reports have been received to afford a good basis for this conservative estimate. In addition to these settlements, it is generally agreed by those who have followed the work of county committees closely that as a second accomplishment they have been responsible for even a larger number of indirect settlements, where one or more members of the committee have given sound advice to the debtor or creditor which has led to a voluntary private settlement.

A third accomplishment which was not designed as a part of the project was that of establishing good working relations between the Federal Land Bank and the general public. The whole debt adjustment program has afforded an opportunity for a better understanding on the part of the committees and others of the functions of the Federal Land Bank. From the standpoint of the community perhaps the greatest accomplishment of the

committees has been that of enlisting the interest of leaders in the county in rendering assistance in the settlement of debt questions which would otherwise have become involved in court action to the detriment of both the debtor and his creditors as well as of the entire community.

It appears that the reputation of the farm debt adjustment committees is such that every opportunity ought to be employed to develop permanent credit advisory committees. In addition to helping to handle distressed farm debt cases as they arise a responsible, non-partisan credit committee in any county can serve in many ways for the good of the community. Some of them are already serving in good capacity in rebuilding the credit morale of the community. They can serve as a good contact for the Farm Credit Administration and other creditor agencies with the local community, and in cooperation with the Agricultural Extension Service they should serve to help avoid some of the same type of debt difficulties which we have experienced in recent years. In closing, I wish to commend to the members of this Association a careful appraisal of the accomplishments of the farm debt adjustment work so that the beneficial results coming from it may be retained for the future good of agriculture.

DISCUSSION BY WILLIAM ALLEN

UNIVERSITY OF SASKATCHEWAN

The excellent paper given by Dr. Case outlines the objectives of the program of voluntary farm debt adjustment, and tells what has been accomplished in the introductory and experimental period of operations. The magnitude of the undertaking is partially indicated in the matter-of-fact statement that some 2600 county farm debt adjustment committees have been appointed. Bringing order and satisfaction out of chaos and distress is not the less difficult when attempted quickly on a nationwide scale. That a great deal of success has attended these efforts is readily apparent, and that further beneficial results will be obtained is assured.

Those unfortunate enough to live beyond the confines of the United States are not the most competent to appraise the results of this initial period of farm debt adjustment. Your closest northern neighbors, however, are faced with many problems similar in character and not less in degree than your own, consequently the success attained by the Farm Credit Administration and allied agencies has more than academic interest for those developing the federal and provincial policies of the Dominion.

The background responsible for Canadian developments in debt adjustment is substantially similar to that south of the international boundary as indicated by Dr. Case. The successive combinations of crop failures

and low prices have radically and rapidly changed the whole economic situation of Canadian prairie agriculture, and incidentally of all Canada. Previous to the current depression, the debt of prairie farmers was generally high relative to the earning powers of the farm, and since it commenced revenues have virtually disappeared over extensive areas increasing difficulties enormously. As this situation was known at first-hand by many members of provincial legislatures, much of the time of recent assemblies has been spent dealing with the difficult problems of debt and relief.

Debt in connection with farm real estate is the most frequent and the most serious obligation which farmers of the prairie provinces have to contend with, and amounts to from two-thirds to three-quarters of their total farm indebtedness. In this respect it constitutes a relatively greater problem than in the United States. Temporary legislation has been progressively enacted during the past few years, in which careful attention has been directed to priority of claims and moratoria to prevent farmers losing their farms, as few could meet their obligations.

The general picture of provisions and enactments passed in the prairie provinces, can be seen in the legislation of Saskatchewan in connection with debt adjustment. As early as 1914 difficulties had been of sufficient degree to warrant the passage of an act providing power of moratorium. In 1922, difficulties were again prominent, and a debt adjustment board was established. Following a conference of creditors, debtors, and representatives of farmers' organizations, in 1925, the work of the Board was enlarged and district inspectors appointed. In 1926, it was thought advisable to allow the power of moratorium obtained in 1914 to lapse. Recent legislative activities commenced in 1929, with an act providing for adjustment of debts by agreement. The difficulties of the next two years were generally more acute, and in 1932 actions of creditors were restricted. In 1933 the power of moratorium was restored; a few regional offices of the Board were opened; and actions were further restricted—none being permitted creditors without the approval of the Debt Adjustment Commissioner. Further changes were made in the spring session 1934.

In the recent fall session of the newly-elected provincial government a new set-up was ordered, but which is not yet in operation. This consists of a Central Debt Adjustment Board, with local tribunals in each of the judicial districts. In addition, the Government has been delegated powers of moratorium. Rulings of local tribunals will be subject to review by the Central Board, which in turn may be finally reviewed by the Government. The onus of applying for protection rests now on the debtor, but creditors must give the Debt Adjustment Board 30 days notice before proceedings can be taken. During this period it is the duty of the local tribunal to bring debtor and creditor together for amicable settlement. Where creditors prove unreasonable, an interim individual moratorium will be given preventing the creditors from taking action against the debtor. Should the debtor be unwilling to subscribe to the settlement deemed fair by the Board the creditor will be permitted to take the usual proceedings.

Debt adjustment provisions have not been restricted to the provincial legislatures, for during the closing days of the spring session of the Ottawa House two bills were passed dealing with agricultural credit. The more

important of these was the farmers' creditors arrangement act, 1934, to "facilitate compromises and arrangements between farmers and their creditors." The other bill was the Canadian farm loan act amendment act, 1934. Under the farmers' creditors arrangement act, farmers unable to meet their liabilities may propose to creditors a composition, extension of time, or scheme of arrangement of their affairs without going into bankruptcy. The Federal Minister of Finance is responsible for the administration of the act, which is effective through the chief administrator, who is located at Ottawa. Provincial Boards of Review have been appointed consisting of three commissioners, and under them official receivers have been appointed for each judicial district. Where the district official receivers favor an adjustment or compromise, and fail to obtain the consent of the secured creditors, the case must be referred to the Provincial Board of Review, which, according to the act, has the powers necessary to dictate terms to the creditors. At present little can be reported concerning this act, as the first cases are now being heard by the Boards of Review. The judgments delivered at these hearings will largely determine the effectiveness of the district official receivers in securing agreements between creditors and debtors.

At the present time there appears to be considerable uncertainty regarding the exact legal rights of the provinces and of the Dominion to make adjustments in the indebtedness of farmers. The existence of two bodies which appear to have the same objectives is in itself confusing to the laymen. While there is a plethora of legal talent available for positions connected with these recent enactments, there appears to be a dearth of men desirable for these appointments who have a practical agricultural economic background, whereas in the United States this condition is not apparent.

The schemes in Canada have yet to be tested, and considerable modification may be found necessary. The provisions made would probably be considered less voluntary than those discussed by Dr. Case for the republic, although the objectives are similar. Settlement out of court is encouraged, as far as possible, and many adjustments have been made privately. There is, however, sufficient evidence to indicate the reluctance of the secured creditors to give consideration to other creditors. Equitable recognition of the services rendered by the unsecured creditors to the farmer, and indirectly to the secured creditors is as difficult a problem in Canada, as elsewhere, but attempts are being made to see that some consideration for the unsecured creditors is forthcoming.

DISCUSSION BY PAUL BESTOR

PRUDENTIAL INSURANCE COMPANY

Dr. Case has given us a comprehensive statement concerning the set-up and accomplishments of the debt adjustment committees which have been endeavoring to solve the problems of worthy distressed farm debtors. The large part which he has played in this notable work places him in a position to speak with authority. As a matter of fact, he has covered the subject so fairly and so completely that there is little to add to the excellent address which he has given.

From the first, the company with which I am connected has favored the setting up of debt adjustment committees. As a matter of fact, one of our officers, as some of you may remember, suggested such a plan at a meeting which was held some two years ago. Since the organization of these committees, we have endeavored to cooperate with them at all times to the fullest possible extent within such limitations as we, by the very nature of our own obligations and legal limitations, must observe. It is my understanding and Dr. Case has confirmed this in his address, that other large creditors generally have followed the same policy of cooperation.

I heartily agree with Dr. Case that in general the committees have been composed of men with high ideals of public service, and that in working out the distressed cases which have come to their attention they have given due consideration to the position of both debtor and creditor. The fact that there have been a few committees who seem to have taken the position that all borrowers were worthy and deserving, that all debts must be scaled down and that no foreclosure action should be taken in any case does not detract from the efficient service which has been rendered by the great majority of these committees.

Dr. Case has well stated that no two farm debt situations are alike; that each case must be treated on its own merits. That the debt adjustment committees have been able to accomplish so much is due in large part to their recognition of this fact. Although in working out distressed cases it is necessary to treat them individually, yet for the purpose of this discussion, they naturally fall in certain general groups. For instance, those farmers who have practically no debts except a first mortgage on their land seldom have any difficulty under present conditions in arranging with their chief creditor for an extension of time on delinquent items. Wherever necessary such items are amortized over a comparatively long period of time on an easy payment basis. This is the practice of the company with which I am connected and has been since shortly after the beginning of the depression. We have extended the time of payment for worthy borrowers wherever the circumstances justified it and it is a practice followed by many other creditors. In such cases where the borrower is reasonably capable, is willing to cooperate and where his debts are practically all in the hands of one creditor, there is seldom any need for them to come to the hands of the debt adjustment committee, and if it does come to the committee, it is, as a rule, a comparatively simple task to work out a program which should give that type of borrower a reasonable opportunity to liquidate his indebtedness.

But while this group does not present a serious problem for the debt adjustment committee or for the creditor, there is a class of an entirely different type for which the debt adjustment committee can hope to accomplish little. This is the class of borrowers who refuse to play square with their creditors. As Dr. Case has clearly stated, it is not the function of the debt adjustment committees to prevent legal action in such cases. It is asking too much of any creditor to suggest that he grant an extension or a scale-down to a borrower who consistently refuses to apply the proceeds of the farm over and above the necessary expenses to the liquidation of his honest debts. Illustrations of this are more numerous than they should be. Two somewhat similar cases where foreclosure was recom-

mended came over my desk just a day or two before I left the office. In one, no interest payment had been made for 3 years. The borrower refused to either apply any part of the proceeds of the farm on the delinquencies or to try to secure refinancing through the Federal Land Bank. In the other case, no interest or taxes had been paid for 3 years and the proceeds of the farm had been applied on other farm debts although we held a crop mortgage. Under circumstances such as these, there remains no other alternative than foreclosure.

Dr. Case has also mentioned that it is not the function of the debt adjustment committees to endeavor to save distressed borrowers who are not reasonably capable. Borrowers who are seriously lacking in managing ability are in a class which is most difficult to handle. If the farm is such that in the hands of a farmer of normal ability it could be expected to liquidate the debt over a reasonable period of time, and the present management is so inefficient as to give no promise of such accomplishment, it is a good deal to expect of the creditors that they will make such concessions as would enable the inefficient farmer to succeed. The fine point in this is who is to determine whether the farmer is efficient. The tendency on the part of the creditors, if the farmer is willing to do his honest best, is to give him the benefit of the doubt as to his capacity. My own opinion is that creditors generally are inclined to go a long way with every farmer who is doing his utmost to meet his obligations.

There is another class that is closely allied to the one I have just discussed and that is the one where the owner of the property is not doing his best to prevent deterioration of the security under the mortgage. There are a good many borrowers that come in this class. In driving through a farming area you might come to the conclusion that most farmers belong in this class at the present time because of the general run-down appearance of the farm buildings and evidences that soil fertility is not being properly conserved. In many cases, of course, this is not the fault of the owner; he is not in a position to keep up the security. However, there are cases and they are brought to the attention of every creditor where the borrower could prevent deterioration at least to some extent and makes no effort to do so. When cases such as these are brought to the debt adjustment committee, it seems to me that it is its function to require direct performance on the part of the borrowers in the way of keeping up the security as a part of the program to be worked out. One of the most exasperating things to creditors is to see the security back of their loans rapidly disintegrating without being in a position to prevent it. Some debt adjustment committees have rendered a real service in this connection.

But I have been discussing only the smaller groups of distressed borrowers and not the great group of worthy borrowers who are doing their utmost to hold their farms and pay their debts. It is to this group that the debt adjustment committees have rendered a real service. It is a service, as Dr. Case has pointed out, to both debtor and creditor. Where the debt adjustment committees bring the debtor and his creditors together to discuss a satisfactory program, it is often found as has been pointed out, that extensions may be granted or that adjustments may be made to the point where the borrower will have a very good chance of working out of his difficulties. In many cases it may be well to have

his loan refinanced by the Farm Credit Administration. It is scarcely necessary to comment on the good that has been accomplished with this group. The figures quoted by Dr. Case are conclusive proof of what has been done.

In connection with this great group of worthy distressed borrowers there are, of course, a considerable number who are so hopelessly involved that it is impossible to work out any plan other than that of foreclosure. In so far as foreclosure is concerned, it is scarcely necessary to say that the soulless corporation that forecloses its mortgage in order to acquire a property is found only in fiction. Anyone who has actually studied the situation to any extent whatsoever knows that large creditors do not foreclose under present conditions if they can find any other solution for the problem. The debt adjustment committees know that this is the case. It may be that some local creditors in individual cases actually desire to acquire a property by foreclosure of mortgage, but in so far as the larger creditors are concerned, they do not want to acquire the property and will not foreclose it unless practically compelled to do so.

Dr. Case has mentioned the problem of the junior lienholder and it seems to me that this is a real problem. The junior lienholder desires to salvage his investment if possible. Usually he does what he thinks best to accomplish that. No doubt as Dr. Case has said, the creditor sometimes needs the money as badly as the debtor, but sometimes junior lienholders use methods which jam the works for everyone. It has been our experience that many deserving debtors could be saved if junior lienholders would cooperate. In many cases, regardless of the effect upon the borrower, the junior lienholder is able to seize the proceeds from the farm and even the livestock or part of the equipment, so that the farmer is left helpless to meet his prior obligations or to continue his farming operations with any degree of hope. The first lienholder having paid the taxes on the farm for 3 or 4 years, having received none of the avails from the farm, and finding that the farmer is in a hopeless situation, is compelled to foreclose. The debt adjustment committees can render a real service in such cases.

Along this same line, the debt adjustment committees generally have a difficult problem to solve when it comes to the discount of debts. Local pressure is sometimes brought to have them disregard priority of liens. Failure to recognize the proper priority of liens would be fatal to the whole credit structure. When any individual or company makes a first lien on a piece of property, the property is appraised and the creditor decides that he has a proper margin of security before he makes the loan. If later on, other liens are placed on the property and an adjustment of the debts is accomplished without proper regard for the first lienholder, creditors of the future will certainly not risk their money on that type of investment. This does not mean that junior lienholders should make all the sacrifices necessary in order to work out a proper adjustment of the farmers' debts, but where discounts are necessary, it does mean that junior lienholders must bear the larger burden. In working out any individual borrower's refinancing program, if it is found that an extension cannot be arranged and if an effort is then made to refinance all of the debts through the Farm Credit Administration and that method fails, then if the case is a worthy one, it is only right and just that creditors

should make concessions as the individual case warrants with due consideration to the priority of their respective liens.

In listing the functions of the debt adjustment committees, Dr. Case has mentioned the fact that they have given legal advice to debtor and creditor as to the best course to pursue. It seems to me that Committees would do well to proceed cautiously in recommending to any distressed borrower that he file petition under the Frazier-Lemke amendment to the bankruptcy act. There is a probability that the borrower is jumping from the frying pan into the fire if he attempts to avoid foreclosure, after which he might have been able to repurchase his farm on easy terms, by going into bankruptcy court to be tied up for 5 years with all of the uncertainties and limitations that will be placed upon him.

After all, as Dr. Case has reminded you, some debtors cannot be saved, and in these circumstances a foreclosure may be beneficial to the community and to the individual distressed owner also. The morale of the community is much improved by hopeless situations being satisfactorily cleared up, preferably by extension or compromise of debts to good farmers if it can be done, but if not, then by foreclosure. This cancels the debt and places the farmer in a position to get a fresh start. He may later on wish to repurchase the farm concerned. I believe that in such cases, institutional owners generally, and I know it to be true of the company with which I am connected, will not attempt to make any profit on the former owner but will resell the farm to him at the investment cost on easy terms. Many farms that have been acquired by institutional lenders, rehabilitated and sold back to the original owner, are now going propositions.

Dr. Case has said that the farm debt adjustment committees should be a potent force in rebuilding the needed morale with regard to the financial responsibility of debtors. He has said that the continuing influence of the debt adjustment committees should be to keep before the individual debtor whom they have aided, his responsibility for meeting his personal financial obligations in an honorable manner. In doing this, the debt adjustment committee is rendering the greatest service of all to farmers in that it is maintaining for him a continuance of credit which the radical elements in our country today would destroy.

THE PROCESSING TAXES AND SOME PROBLEMS RAISED BY THEM¹

M. SLADE KENDRICK

AGRICULTURAL ADJUSTMENT ADMINISTRATION

This topic divides naturally into two questions: What are the processing taxes? What problems do they raise? These questions will be considered in order. I say "considered" for processing taxation is in process. Not all questions concerning it can be answered.

Agricultural commodities on their way to consumption are usually subjected to one or more processing operations in order to prepare them for use. Individual definitions of processing are given in the agricultural adjustment act for six of the fourteen commodities designated by it as basic. Thus, the processing of wheat, rice and corn "means the milling or other processing (except cleaning and drying) of wheat, rice, or corn for market, including custom milling for toll as well as commercial milling," but "does not include the grinding or cracking thereof not in the form of flour for feed purposes only." The processing of cotton "means the spinning, manufacturing, or other processing (except ginning) of cotton; and the term 'cotton' does not include cotton linters."

If the processing of a basic commodity is not defined specifically, the general definition of processing applies. The law broadly defines the term "processing" so as to include any manufacturing or other processing that involves a change in the form of the commodity or its preparation for distribution or use, as defined by regulations of the Secretary of Agriculture. In prescribing such regulations, the Secretary is required to "give due weight to the customs of the industry."

Processing taxes are, by the terms of the agricultural adjustment act, levies on the first domestic processing of basic agricultural commodities. At present, such taxes are in effect on wheat, cotton, corn, hogs, tobacco, sugar, and peanuts. These taxes are the financial heart of the agricultural adjustment program. By their collection, funds are provided that make this program possible. They are not ends in themselves but instruments. And, as such, they should be considered.

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 28, 1934.

Both individual and general problems are raised by the processing taxes. Upon the levy of each such tax certain individual problems arise. And a number of large general problems follow from processing taxation itself considered as a revenue instrument.

Perhaps the individual problems can be considered best by indicating how they arise in the operation of imposing a processing tax. The act provides that whenever the Secretary proclaims that rental or benefit payments are to be made with respect to any basic agricultural commodity, a processing tax on such commodity shall be effective from the beginning of the marketing year following this proclamation. The first matters for determination, therefore, are the beginning of the marketing year, and the definition of first domestic processing.

Determination of the marketing year is usually a relatively simple operation. The marketing year is indicated by the movement of the crop. The date that marks the appearance of the new crop on the market is the beginning of the marketing year. Although obviously no given day on which a marketing year begins can be said to exist, there is for each crop a period within which a date for the marketing year can be determined by statistics of the Department of Agriculture.

Although individual definitions of first domestic processing are included in the agricultural adjustment act for all commodities now subjected to processing tax levies, it was necessary for purposes of tax administration to interpret these definitions so as to fix the precise lines of distinction that make possible a ready determination of taxable objects. For example, the processing of peanuts is defined in the act as "the cleaning, polishing, grading, shelling, crushing, or other processing thereof." Clearly, not all these operations could be taxed, for not all peanuts that are processed go through the whole of these operations. But all peanuts are cleaned and therefore to give effect to the law regulations were issued providing that the tax would attach to the first act of processing contained in the definition, namely, that of cleaning. Likewise, the definition of the first domestic processing of cotton given in the act is in and of itself insufficient. Neither the spinning nor the manufacturing of cotton is a simple operation readily to be distinguished. Indeed, so complicated is the fabrication of cotton that each is but a name for many operations. The tax had to attach to one and it had to be designated. Otherwise, endless administrative difficulties would have resulted from its imposition. The decision was that the processing

of cotton begins with the breaking of the bale for manufacture. Consequently, the tax attaches at that point. Whoever breaks the bale pays the processing tax on cotton.

The rates at which the processing taxes are levied are determined according to the formulas set forth in the agricultural adjustment act. One formula provides for the taxation of sugar; another for the taxation of other basic agricultural commodities.

After giving a formula for a higher rate of tax on sugar beets and sugar cane, the Jones-Costigan amendment limited its application by providing that the rate of tax levied could not exceed the reduction in the tariff on sugar ordered by the President. Because this reduction was 0.5 cents a pound, raw value, such was the rate of tax indicated.

For other commodities, the agricultural adjustment act provides that the rate of processing taxation shall be the difference between the current farm price of the commodity and its fair exchange value, which is defined in the act, except, that if imposition of the full rate on the commodity generally or for any particular uses will, through reduction in the domestic consumption, cause a surplus of the commodity to accumulate or a depression in the farm price, the tax shall be fixed at such rate as will prevent these effects.

This provision, as will be readily observed, raises a number of problems. First is that of determining the rate of tax indicated by the parity consideration. In view of the statistical data of the Department of Agriculture, this is not a difficult matter. For the most part it can be said to be, in effect, a mathematical determination.

A far deeper problem is that raised by the effects of the rate of tax on the consumption and therefore on the farm price of the commodity. This is the problem of incidence. Given the exact slopes of the supply curve of and the demand curve for the commodity, the resulting effects of the tax on consumption and price are readily determined. But these ideal requirements cannot be fulfilled in actual practice. The best that can be done is to determine, as one can, from crop reports, feed and seed requirements, and other available data, the supply that will be available for market and to equate it against a supply-price curve that gives the prices at which varying supplies have been sold during previous years. Such a curve may be corrected for changes in the general price level, consumer income, or other variable. It may be adjusted to depression conditions or permitted to stand. But

however carefully determined, there is room in interpreting it for economic theory and common sense.

The law provides that a hearing, to which interested persons are invited, must be held before a processing tax can be levied at a rate less than that indicated by the ratio of the current to the parity price. At these hearings, representatives of the industry affected, usually processors of the commodity, appear and give testimony. Occasional leads and sometimes valuable information are brought forth at these hearings. Too frequently, however, the testimony presented at such a hearing is irrelevant or superficial. Many business men either do not understand or do not take the trouble to understand the issues involved. Consequently, in their testimony they depart from the point or give information that bears but loosely upon it. Ready with opinion, they give few facts. One of the most unfortunate aspects of the administration of the processing taxes is that what ought to be a valuable source of information, namely, the facts presented by the industry concerned, is frequently of small worth. This was apparently recognized by Congress, for it made provision for supplementing this information by independent investigations of the Department of Agriculture.

The theory of the act is that the processing taxes are shifted forward. Consequently, when such a tax goes into effect, a corresponding floor stocks levy is made immediately on the right to sell all wholesale and warehoused stocks of the taxed commodity. This is done to equalize the economic positions of those holding stocks of this commodity. For with this tax, no advantage attaches to an accumulation of stock in anticipation of the levy of the processing tax. And if the tax should be terminated, the revenue from the floor stocks levy makes possible a refund of the tax to those holding stocks on the date of the termination. In recognition of the burden which a floor stocks levy would place on retailers, if applied at once to the stocks in their stores, they are given thirty days in which to dispose of these stocks. At the end of that period, the floor stocks levy attaches on the right to dispose of any of such unsold stocks remaining. The thirty day period, however, does not apply to stocks of retailers held in warehouses. On the termination of a processing tax, no refund is made with respect to retail stocks held in stores.

At the same time that a processing tax on a basic commodity goes into effect, an import compensating tax on articles processed from this commodity also becomes effective. Provision for refunds on the export of articles processed from the taxed com-

modity likewise is made effective. These provisions for the levy of floor stocks and import compensating taxes and for the making of refunds on exported articles raise a number of problems.

Formerly, when a floor stocks levy was made, it could not be increased even though the rate of the processing tax was increased. This situation has, however, been corrected by an amendment to the Act passed during the last session of Congress which provides for the adjustment of the floor stocks levy up or down to correspond to changes in the processing tax.

Most difficult to enforce of the provisions respecting processing taxation are those providing for the imposition of compensating taxes. Such taxes are intended to protect processors of a basic commodity who are handicapped in competition by reason of the payment of a processing tax. Section 15(d) of the act requires the Secretary to ascertain from time to time whether processors of a basic commodity are or will be at a disadvantage in competition by reason of excessive shifts in consumption caused by the payment of a processing tax. If the Secretary finds that such disadvantages exist or will exist, he must issue a proclamation specifying the competing commodity and the rate of tax necessary to prevent these disadvantages. Under the law the tax becomes effective on the first domestic processing of this commodity at the indicated rate, except it cannot exceed that imposed per equivalent unit on the basic commodity.

This provision refers solely to processors, not to accumulation of surplus stocks and depression of the farm price, matters which are treated elsewhere. And clearly the only way that processors can be affected is through their profits. The plain truth is that processors are in business for profits and that which affects the profits from processing affects the processors.

Profit from processing may be affected by excessive shifts in consumption in two ways which may function singly or in combination.

1. The processing may have to be financed on a smaller margin between the price of the raw material and that of the finished product.
2. The processing may be done on the same margin, yet profits suffer or losses appear because of the smaller volume of business over which indirect costs are spread.

Such decline in profits from either effect is not permanent. In the long run, profits in an industry suffering from an excessive shift in consumption caused by payment of a processing tax will be restored to their former competitive relationship by

the slow process of readjustment of capital investment. Some equipment that wears out will not be replaced. Marginal enterprises will withdraw from this field. The rate of new investment in it will slacken. Ultimately, the capital employed in this industry will be decreased to that amount upon which the going rate of return can be realized. Profit per dollar of investment will then be relatively the same as before.

Section 15(d) of the act cannot, therefore, contemplate the situation of processors of a basic agricultural commodity after the capital readjustment caused by the tax is completed. For that situation is relatively the same after the tax as before the tax. It is the readjustment that is in point. Compensating taxes are intended to lessen the readjustment in capital investment that follows from the payment of a processing tax. For with competing commodities bearing a like tax per equivalent unit, the incentive to shift consumption to such commodities is removed and, hence the capital readjustment in the industry affected is lessened.

This interpretation is, however, easier made than applied. For example, what is an "excessive shift in consumption"? Is ten per cent excessive, or is thirty per cent or some other percentage excessive? Or, is excessive something to be related to its effects? Thus, the effect of a ten per cent inroad on the part of a competing product may be greater when the demand for a basic commodity is inelastic than a fifteen per cent inroad when the demand for this commodity is elastic. If this hurdle be surmounted, another awaits. The shift must be due to the payment of the processing tax and to no other cause. The economic world is not a static world. It is always in process of change and sometimes rapid change. How is it to be determined whether a given change is caused by payment of a processing tax, or whether it is caused by some other factor? Or, if this change is caused by a converging of the effects of the tax and of other factors, how can the effects of the tax be separated? These are among the problems that make application of the compensating tax provision of the act difficult.

At present, compensating taxes are in effect on the processing of jute into twine and small bags, and on the processing of paper into gummed paper tape, towels, and paper bags. All these taxes are levied to protect processors in certain divisions of the field of cotton fabrication.

Gummed paper tape is taxed because it competes with cotton twine for wrapping purposes. Experience with this tax points to

the necessity that great care be exercised in defining a taxable object. The first definition chosen resulted not only in the taxation of the paper tape that competes with cotton twine, but also in the taxation of a number of paper tapes that do not compete. For example, a heavy tape used to paste the corners of paste-board boxes was taxed, yet because of the requirement that the product so used have the requisite stiffness, cotton cannot be put to this use. When these facts were brought to the attention of the Administration, a new definition was devised which effectively reaches the tape that competes and excludes the tapes that do not compete.

A curious situation developed with respect to the taxation of paper bags. Although large jute bags were taxed when compensating taxes first became effective in December, 1933, jute bags three feet wide and six feet long, were exempted from taxation. This exemption was made in order to exclude from taxation jute bags used for packaging wool. Cotton bags are not used for packaging wool, therefore, it was unnecessary to tax jute bags in order to protect cotton bags in this use.

On the other hand, when the tax became operative on the processing of paper into bags, no size limitations were included in the definition. Shortly after this tax was in effect, a paper mesh bag was developed for wool. By the definition of paper bags the processing of which was subjected to taxation, this bag was burdened by a tax, and because it was heavy, at a high percentage of its value. Thus this paper bag was affected by a heavy compensating tax, the result of which was to protect a jute bag which was itself not subject to processing taxation. This situation, like the other was corrected by a change in the definition of paper bags, the effect of which was to exclude this large open mesh paper bag from the operation of the tax.

The act provides that the rate of a compensating tax cannot be greater than that imposed per equivalent unit on the basic commodity. Hence the problem arises: What is an equivalent unit? Such a unit might conceivably be one of quantity, of value, or of use. The competition, however, is in terms of use. Therefore the use factor is recognized in compensating taxation. The tax on the competing commodity must be on its first domestic processing. And, owing to the fact that the processing taxes on basic commodities are levied on the weight of such commodities, the unit of use is obviously to be employed in relation to weight.

For example, at the time the study was made of the competition between paper and cotton, a survey of the use of gummed

paper tape was made to determine the average ratio between the lengths of tape and twine used to fasten packages of the same size. These lengths were then converted into the weight of paper and cotton from which the tape and the twine respectively, were processed and the indicated rate of tax determined.

Competition between paper and cotton towels offered an interesting problem because paper towels are used but once and cotton towels many times. Many factors entered into this study, including curiously enough, the number of so-called "wipes" that were possible with each type of towel.

Other special problems, both economic and administrative, might be examined here, but, in my opinion, the time remaining will be better employed in considering a number of large general problems of processing taxation. Among them is the problem of changes in the rates of processing taxes. The market prices of the taxed commodities change; the parity prices change; why then should not the tax rates be in a continual process of change?

The answer is to be found partly in the element of uncertainty which continual changes in processing taxation would introduce into business calculations but mostly in the purpose that processing taxes serve by command of Congress. Such taxes are but instruments to effectuate the policy that prices of farm products be restored and maintained at their pre-war relationship with the prices of commodities that farmers buy. They serve by providing funds with which to finance programs of adjustment. A processing tax is levied only after the Secretary has proclaimed that rental and/or benefit payments are to be made with respect to a basic commodity. Thus, these payments are linked at one end to the adjustment sought to be attained; at the other, to the yield of the tax and hence to the rate at which it is levied. To disturb the rate of tax while a program of adjustment is in process would disturb the yield that makes this program possible and therefore would operate to prevent attainment of the end sought. It is this consideration that is chiefly responsible for a general policy of stable rates of processing taxation during the life of a program depending on these taxes for revenue.

Another and a related general problem is when a processing tax should terminate. The agricultural adjustment act declares the policy of Congress—

"to establish and maintain such balance between the production and consumption of agricultural commodities, and such marketing conditions therefor, as will reestablish prices to farmers at a level that will give agricultural commodities a purchasing power

with respect to articles that farmers buy, equivalent to the purchasing power of agricultural commodities in the base period."

When the price of a basic commodity reaches parity, should the tax be terminated forthwith? If the Government is still committed by contracts with growers to the making of benefit payments financed by the tax, it appears reasonable to conclude that the tax should not be terminated. But if the price is at parity and all commitments paid, should new commitments be made, thereby necessitating continuance of the tax? The Agricultural Adjustment Administration has not yet been confronted with this issue. The nearest approach to it is that of Maryland Tobacco. When the price of this tobacco reached parity, the rate of the processing tax was reduced to zero. The Government was still under contract with the growers but had a surplus with which to make the payments for which it was obligated. Thus, this instance gives little clue to what will be done if and when this issue arises. The argument would, in that event, turn on the meaning of the phrase "to maintain" in the declared policy of the act and the relation of the adjustment program to that meaning. What the outcome will be, I shall not venture to predict. I should suppose, however, that the economic argument that would justify continuance of the tax would have to take into account the fact that the price relationships sought to be reestablished by the agricultural adjustment act were themselves the result of the play of economic forces in a period when neither agricultural prices nor production were controlled.

It would appear, therefore, that in order to justify the continued levy of processing taxes after parity prices have been reached, the difference between conditions in the base period and those in the present period would have to be clearly indicated and related to the levy of the tax.

The processing taxes suffer from certain defects as instruments to make agricultural adjustment effective. Such taxes are, as has been remarked, levied to provide funds for benefit payments to producers for adjustment of their production. Owing to the parity and current price relationship that governs their maximum rate, the lower the price of the farm product that is taxed, the greater can be the rate of tax and, subject to the effect on consumption, the greater the revenue yield and consequently the more attractive the benefit payments that can be offered producers. As the price rises, the rate of tax, if levied at parity in the first instance, cannot be increased, though, as explained ear-

lier, it can be continued during the life of the program that it finances. But the nearer the approach of the price to parity, the larger the benefit payments should be in order to give producers an incentive to cooperate. These additional payments are, however, impossible to finance under the system of processing taxes as now established. Thus, processing taxes have the defect of being more effective in the earlier than in the later stages of agricultural adjustment.

Another defect of processing taxation arises from the differences among the basic commodities in the ratio of processed to total product. For example, most corn is fed to animals. Only a small percentage of this crop is processed for human and industrial uses. Practically all hogs, however, are processed. Thus, only a relatively small amount of revenue is received from the processing tax on corn, but a relatively large amount is received from the processing tax on hogs. Thus, the adjustment program on corn must be financed in large part by a fund actually originating from the proceeds of the processing tax on hogs. In general, owing to the fact that hogs are fed on corn, there is justification for this procedure. Nevertheless, to the extent that these taxes are passed back to the producer this method of financing these programs may to some extent make for inequalities among individuals between tax burdens and benefit payments, though within such limits as not to be unreasonable.

In view of the many problems that arise in the administration of processing taxes, the question might well be asked: Why have them? Why not substitute another tax? The answer to date is to be found in the advantages of processing taxes for the particular ends that they serve.

It is important that the yields of such taxes be forecast with considerable accuracy, for revenues so obtained provide funds for benefit payments to producers under contracts which are usually made months in advance of the time these revenues are collected. A tax on the units processed involves an estimate only of the number of units that will be processed for domestic consumption other than for exempt uses. The variable of price is thus eliminated, except as price changes affect the number of units processed. Consequently the yield of such a tax can be estimated with a greater degree of accuracy than can that of a sales tax.

Processing taxes are also related directly to the goal of the agricultural adjustment act, namely, the restoration of parity prices for agricultural products. Such taxes are to be interpreted

as measures designed to restore the parity price on that part of the crop which is consumed in the domestic market. For, when a processing tax is levied at the rate indicated by the difference between the current farm and the parity price its yield plus the price received from the commodity will, except for the expense of administration, give to producers as close an approach to the parity price as consumers will pay for the quantity put on the market.

In addition to these advantages for the particular purpose of their levy, processing tax payments being obligations of a relatively small number of processors, are relatively simple to collect and, consequently, are collected at the low cost of less than 0.7 of one per cent.

This statement of the advantages of processing taxes is not to be interpreted as a prophecy that such taxes are destined to be continued indefinitely. It is merely to point out that though processing taxes have their problems, they have their advantages also, for the end that they serve, the financing of programs for agricultural adjustment.

DISCUSSION BY LAWRENCE MYERS

AGRICULTURAL ADJUSTMENT ADMINISTRATION

Being also with the Agricultural Adjustment Administration, and having worked on some of the tax problems Dr. Kendrick has discussed, I shall not attempt to go over his paper in detail and utter amens or dissenting opinions on the various points he has made. However, I will confine my remarks, in a general way at least, to Dr. Kendrick's subject, which seems to have the all inclusive characteristics of Mother Hubbard's gown.

If one is to look behind the details of the processing tax provisions of the agricultural adjustment act, and examine their logic it would be well to start with the notion of parity price or the "fair exchange value" of a commodity. In the prolonged agitation of the post-war period for a program to aid agriculture the parity price idea was developed and used widely as a measurement of what would constitute justice for agriculture. In the discussions then current numerous references were made to the purchasing power of farm products and it was pointed out that prices of agricultural products were lower comparatively than prices of non-agricultural products, or that prices farmers receive were out of line with prices they pay. Little argument was heard against the position thus taken that prices of farm products *should* be on a parity with prices of industrial products. It seems to have been taken for granted that on the one hand farmers were entitled to parity prices, and that on the other hand consumers could not object to paying parity prices for agricultural products. The parity price, therefore, appears to have been accepted as a

sort of "fair" price. With that concept as a basis there is a simple logic in the provision that the rate of processing tax be established at a rate equal to the amount by which the actual price is below the parity price.

If the parity price argument were followed rigidly no attention would be given to possible adverse effects from having costs of agricultural products to processors at the parity price level. Whether consumption were restricted, or donations to the needy made more expensive by the increase, a complete acceptance of the parity price concept would require that the result be accepted as inevitable. Indeed, there must be some such acceptance in connection with the adjustment program as a whole. If it is sincerely desired that prices be higher to farmers then there must be a willingness to accept increased costs to consumers.

In the tax sections of the agricultural adjustment act, however, several provisions were made to retain some of the advantages of low prices. In the first instance it was provided that if it were found that a rate of tax equal to the full difference between the farm price and the parity price would produce certain disadvantages, then the tax should be at a rate that would avoid these results. The provisions for tax refunds in the case of articles for charitable distribution and in cases where the tax causes a sufficient decrease in the consumption of a class of products and the provisions for compensatory taxes on competing commodities appear to have been designed to retain some of the advantages of low prices. The provisions for compensatory import taxes on processed articles and tax refunds on the exportation of processed articles recognize the fact that the processing tax applies to domestic processing and not to foreign processing. Of course, there is nothing erratic in these provisions to retain certain of the advantages resulting from prices below a parity level. They may be looked upon as safeguards. However, they do reflect a considerable degree of caution in connection with the possible effects of processing taxes. Undoubtedly more attention is given to the effects of the processing taxes than would be given to an equal increase in the price itself, although complaints are made against price increases that result from governmental programs.

Actually it is doubtful that a processing tax is as burdensome generally as an equal rise in the price. Although the tax requires the keeping of certain records and the making of reports to revenue collectors that would not be required if there were no processing tax, yet the tax does not require as much capital to finance the commodity from the producer to the processor as would be required if prices were higher by the amount of the tax. Moreover, payment of the tax does not occur until after processing has occurred. The truth is processors have received a certain amount of financial assistance by reason of the fact that in many instances the processed articles have been sold and payment received (with tax included) before the processor has paid the Government. In addition it might be noted that the Secretary of the Treasury is authorized to permit a postponement of the payment of the tax for a period of 180 days. The basic objection to the tax probably is the regret some feel at giving up the advantages of low prices.

Now let us examine the cotton processing tax and some of the points raised with respect to it. The rate of the cotton processing tax is 4.2 cents

per pound net weight, or the equivalent of 4 cents per pound gross weight, as cotton is sold in this country.

Does this tax increase the cost paid by the domestic consumer or does it lower the price received by the farmer? Cotton prices are made in the world market. Normally between 55 and 60 percent of the domestic crop is exported. The processing tax does not attach to exports, and we have no evidence that the existence of a processing tax in this country will influence foreign buyers in the purchase of American cotton. The processing tax therefore is a cost in addition to the world price that attaches to the processing of cotton in the United States. The only way that the processing tax could lower the price received by the domestic producer would be by reducing the consumption of cotton in the United States, thereby forcing more of the crop into the export market and in turn lowering the world price of cotton. Since the foreign market is larger than the domestic market, and since the elasticity of foreign demand is greater than the elasticity of domestic demand, the possible extent of such indirect effect is small.

The course of mill margins is also of interest in connection with the tax. For the years 1925-26 to 1929-30 mill margins on 17 cloth constructions averaged 14.49 cents per pound of cotton entering manufacture. With the depression mill margins declined, reaching a low point of 7.34 cents for the week ended March 3, 1933. The speculative recovery in the summer of 1933 caused mill margins to increase to 18.83 cents for the week ended July 28, 1933. The cotton processing tax became effective August 1, 1933, and in the week ended August 11 mill margins reached the highest point of the nine year period, being 19.06 cents after allowing for the tax, or 23.06 cents including the tax. The full amount of the tax, therefore, was added to the selling price of the cloth. As the speculative buying subsided mill margins receded. In the week of July 13, 1934, mill margins were at the lowest level since the tax has been in effect. In that week the margin was 11.40 cents excluding the tax or 15.40 cents including it. For the sixteen months since the tax has been in effect mill margins, excluding the tax, have averaged 0.70 cent per pound less than they did in the period before the depression, but 3.22 cents above the average for the period August 1930 through July 1933. Clearly the cotton processing tax has not been borne by cotton mills. On the other hand, considering the increases in labor costs, there is no indication of a pyramiding of the tax for the period as a whole.

One of the points sometimes raised is that the single specific rate causes the burden of the tax to be disproportionately heavy upon consumers of coarse, cheap articles. Some of the arguments go farther and oppose any tax upon cotton articles because they consist so largely of essential household articles and clothing. Only a few of the implications can be touched upon at this time and they must be considered briefly. The first point involves the question of whether the rate should be uniform or whether it should, from a standpoint of economic desirability, be varied, in the nature of an *ad valorem* rate, according to the cotton consumed or the article produced. In considering this issue it will be well to note first of all that the present tax results in a somewhat greater per pound burden upon fine combed goods than it does upon coarse carded goods because of differences in the amount of waste resulting from pro-

cessing. It should also be noted that the prime factor causing differences in the values of finished cotton articles is not differences in the cost of cotton entering manufacture, but differences in the amount of processing. If the tax were to be determined by the value of the finished article, therefore, it would be largely a tax on labor, or value added by manufacture. Differences in the value of cotton entering manufacture are of little significance in this connection. To illustrate, the amount of the tax with respect to the cotton processed into a work shirt, usually selling for less than one dollar, amounts to 2.99 cents. For a dress shirt selling for nearly two dollars it amounts to 3.06 cents. If the tax were based on the value of cotton used, and the tax for the work shirt were unchanged, the tax for the dress shirt would be increased 0.7 cent. Moreover, as of November 26 approximately 90 percent of the American cotton crop had a value of $11\frac{1}{2}$ cents to 14 cents per pound. In any tax program for the commodity, this cotton must carry the bulk of the load.

Looked at from another angle, if the tax is to function as intended it must be as simplified and certain as possible. With the present uniform rate tax assessments and collections are readily checked and certain. If they were complicated and difficult to check, tax evasion would result and mills that pay their taxes would be placed at a disadvantage. As the act stands tax refunds have an important place in the program. If the rate of tax varied with the value of the cotton entering manufacture, however, the calculations required for obtaining a refund would probably become so complex that this part of the program would have to be dropped.

In part the criticism of the uniform rate can be met through tax "refunds" where it can be shown that the payment of the tax is reducing consumption of a class of products in whole or in large part. Action of this nature has been taken with respect to cotton processed into large bags.

The primary point of these objections, however, takes us back to the point from which we started. If the position is accepted that farm products should sell at parity prices, and that the parity price represents a fair price to producers and consumers, then the increased burden that parity prices or the processing tax places upon consumers must be accepted. The fundamental question is, do we want higher prices? If we do, consumers must pay them.

THE INCIDENCE OF THE AAA PROCESSING TAX ON HOGS¹

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The incidence of the AAA processing tax on hogs of \$2.25 per hundred pounds has been the subject of some controversy during the past year. I believe, however, that most of the difference of opinion arises from the different interpretations of what is meant by the question, "Who pays the tax?" There are several different senses in which the question might be asked. One might ask, for example, whose *prices* or *margins* are increased or decreased directly by the tax itself—the farmer's, the packer's, the retailer's, or the consumer's? Or he might ask, whose *total receipts* or *total outlays* are affected? Or, whose *net receipts* or *net outlays* are affected? And then he could start all over again, asking whose prices or margins, whose total receipts or outlays, and whose net receipts or outlays are affected, not directly by the tax itself, but indirectly through the effects of the tax on production and consumption, after those effects have had time to work themselves out. These are some of the different senses in which the question, "Who pays the processing tax on hogs?" may be asked and answered. The different senses are really so many different questions, rather than different senses of the same question. In order to cover the subject comprehensively, I am going to deal separately with all of these questions, taking up each one in its turn.

The several questions may be divided into two main groups. The one group deals with the direct incidence of the tax itself; the other deals with the incidence of the effects of the tax, after they have had time to work out.² My paper is divided into two parts, corresponding to these two groups of questions.

Direct Incidence of the Tax

We will deal first with the direct incidence of the tax. The test as to the direct incidence of the tax is relatively simple. It in-

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 28, 1934.

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² The word "effects" is used here in a special broad sense, to include (a) the individual heterogeneous responses of farmers, packers, retailers, and consumers, and (b) the reduction in corn and hog production requested by the AAA and effected by contract signers in return for benefit payments financed by the proceeds of the tax.

volves determining whether the price or margin is higher or lower, after the tax is applied, than it would have been if there were no tax. It does not involve determining whether the price is higher or lower than before the tax was applied. That falls in the second group of questions. Perhaps the first place to look for the direct incidence of the tax is the packer, since he is the one who pays the tax over to the government in the first place.

Packers Are Not Paying the Tax

The question whether packers are paying the tax out of their own pockets apparently can be answered by direct statistical observation. The Bureau of Agricultural Economics publishes weekly the wholesale value of hog products derived from 100 pounds of live hogs compared with the prices of live hogs.³ Both series are based on Chicago prices. They may be taken as representing the packer's margins. The word "representing" is used advisedly here. The wholesale value of the hog products does not include the value of the by-products, which is an item of some importance.⁴ The two series therefore do not show the full margin taken by packers. But they do show *changes* in the margin, and that is what we are interested in here.

Figure 1 shows that the packers⁵ are not paying the tax. Broadly speaking, they have widened their margin by an amount equal

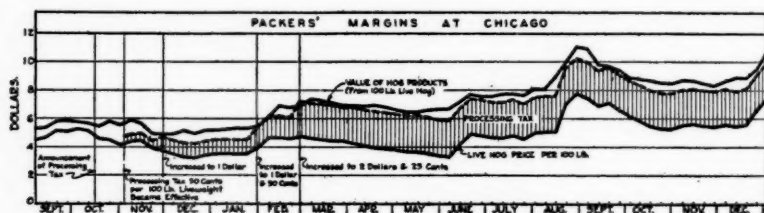


FIGURE 1. Packer's margins, September, 1933 to December, 1934.

to the tax. The figure shows that each time the tax was increased, the packer's margin did not widen further at once; but after a few days the margin was widened by an amount equal to the increase in the tax. The margin in the last few weeks for which data

³ These data are published weekly in "Market Reviews and Statistical Summaries of Live Stock, Meats, and Wool," mimeographed, Bureau of Agricultural Economics, U.S.D.A.

⁴ A series showing the wholesale value of hog products including the value of by-products is shown in an article by Frederick V. Waugh, entitled "Margins in Marketing," *Journal of Farm Economics*, Vol. XVI, No. 2, April, 1934, pp. 233-245.

⁵ Strictly speaking, the chart shows only that the packers at Chicago have not been paying the tax. Data for the packers in the rest of the country are not given. The statement can be generalized only if it is assumed that the relations between packers at Chicago and at other points have remained much as they were before the tax was applied. This assumption is probably correct, but it is only an assumption.

are available was \$2.99, roughly \$2.25 wider than before the tax was applied. The packers, then, have not been paying the tax, nor any substantial part of it.

Retailers Are Not Paying the Tax

The packers have evidently shifted the burden of the tax to someone else. Perhaps they have shifted part of it to the retailer. The spread between wholesale and retail pork prices has remained about as wide since the tax was applied as it was before. This is in accord with expectations; retail margins are notoriously slow to change. A slight decline is evident from early 1932 onward, but the decline after the tax was applied was no greater than before the application of the tax. Retailers, therefore, have not been paying the tax either.

Consumers Are Not Paying the Tax

The processing tax is not absorbed by the packers, nor by the retailers. It is either passed on to consumers, or back to farmers, or a measure of both. Reasoning based upon everyday economic theory leads to the conclusion that, in this situation, the direct incidence of the tax is divided between producer and consumer in inverse proportion to the respective elasticities of their supply and demand curves. Let us consider these two elasticities, dealing first with the elasticity of the consumer's demand curve for pork.

Consumer's Demand Curve for Pork

The demand curve for pork, based upon annual data on a calendar year basis for the period from 1921 to 1934, is shown in Figure 2. Because this curve is somewhat elastic, after the tax is applied the consumer continues to pay the same prices for a given quantity of pork (in a given supply situation of pork substitutes and a given condition of general consumer purchasing power) as he would pay if no tax had been applied. There is no reason why we would expect him to pay more. The packer naturally charges "all that the traffic will bear," that is, all that the consumer will pay, all the time. If the packer tries to charge more, the consumer eats less pork than the packer has to offer, surplus stocks of meat accumulate, and the price has to come down again. This mechanism works all the time, as well when the packer tries to raise the price in order to pass the tax on to the consumer as when he tries to raise the price for any other reason. The tax cannot be passed on to the consumer, because of the

elasticity of his demand for pork, which in turn traces back to the flexibility of consumer habits and the availability of pork substitutes.

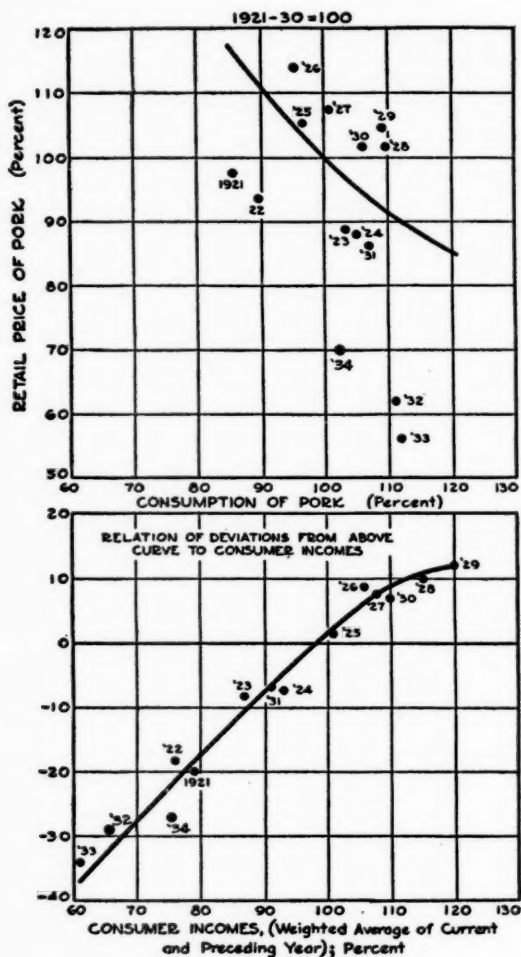


FIGURE 2. Relation of Retail Price of Pork to Consumption of Pork, 1921-1934.

The conclusion that the consumer is not paying the tax, based simply on ordinary economic reasoning, was originally published in this Journal in the issue of July 1934. It has been tested and verified by the course of events during 1934. This is shown in Figure 2. The prototype of Figure 3, when originally published,⁶

⁶ The chart was originally worked out by Preston Richards of the Bureau of Agricultural Economics. It was first published in an article by Working, E. J., "Demand Studies During Times of Rapid Economic Changes," *Econometrica*, April, 1934, p. 144.

covered only the period from 1921 to 1931 inclusive. When the data for 1932 and 1933 became available, I added them to the original chart, and simply extended the original curves in straight lines, until they reached the dots for 1932 and 1933. I was interested to observe that the new dots fell as closely about the extensions of the original curves as the dots for the earlier years fell about the original curves.⁷ We are now able to add the unofficial preliminary estimated data for 1934.⁸ If the processing tax were being passed on to the consumer in the form of higher prices, the dot for 1934 would fall some distance above the curve. Actually, the line falls slightly *below* the curve. The consumer, far from "paying the tax," or any part of it, in the form of pork prices higher than they would have been if no tax had been levied, is paying if anything slightly *less* for pork than one would have estimated on the basis of current pork supplies and consumer purchasing power. Here is preliminary inductive confirmation—not yet final, for the 1934 data are not yet final—of the deductive conclusion that the consumer is not paying the tax.

Farmer's Supply Curve for Hogs

But the farmer is in a different fix. He cannot respond as quickly in his production as the consumer can in his consumption. It has been shown⁹ that the elasticity of the supply of hogs varies from about 7 in Missouri to about 3.5 in Nebraska. But it takes one or two years for this response of production to price to show up in the market place. During the first year, the elasticity of supply of hogs is practically zero.

The packer is therefore able to pass the tax back to the farmer, in the form of lower prices for hogs, without at once provoking a scarcity of hogs which would soon force him to raise his prices again. During the one or two years before reduced supplies of hogs show up in the market place, the price to the farmer is simply lowered by (roughly) the full amount of the tax. In this sense, then, and during that period, the farmer pays the tax himself.

This conclusion, again based on general economic theory, has also been confirmed by factual evidence during 1394. In an article published five or six months ago,¹⁰ dealing in a preliminary man-

⁷ See "The Incidence of the Cost of the AAA Corn-Hog Program," *Journal of Farm Economics*, July, 1934, p. 420. Fig. 2. The Figure 2 shown in the present article is simply a reproduction of Figure 2 in the earlier article, with 1934 data added.

⁸ These data were kindly supplied by Preston Richards of the Bureau of Agricultural Economics.

⁹ Wells, Oris V., "Farmer's Response to Price in Hog Production and Marketing," U.S.D.A. Tech. Bul. No. 359, April, 1933, p. 24.

¹⁰ "The Incidence of the Cost of the AAA Corn-Hog Program," *Journal of Farm Economics*, July, 1934, p. 423, Fig. 3.

ner with the incidence of the processing tax, a chart was shown which exhibited the relations of consumer purchasing power, hog supplies, and hog prices. This chart was drawn with the use of annual data based on the hog year from October to the next September, for the period 1921 to 1933, inclusive. The chart was similar to Figure 3.

We are now able to add the data for the year from October, 1933, to September, 1934. During most of this hog year, the processing tax was in effect. It averaged \$1.64 over the year. If farmers are "paying the tax" themselves, that is, if the price to the farmer is depressed by the amount of the tax, the dot for 1933-34 should fall below the curve in the chart, which is based on 1931 to 1933 data. A glance at Figure 3 shows that this is what happened.¹¹ The dot for 1933-34 is \$1.87 too low. That is, the open market price for hogs was depressed by the full amount of the processing tax, and in fact a little more. If, however, the average amount of the tax (\$1.64) is added to the price data for 1933-34, the dot falls only 23 cents, or 3 per cent, below the curve. This is as close to the curve as the average of the other dots.

It appears, then, that the farmer "pays the processing tax" himself. That is the conclusion of economic theory, and that conclusion is confirmed by the evidence of the facts. It must be remembered, however, that under the terms of the AAA contract, this does not mean a net loss to cooperating hog farmers. During 1934, the benefit payments on hogs were \$5 per head for the 75 per cent of the former production of hogs. The average weight of hogs in the United States for the past decade has been about 230 pounds. The benefit payment of \$5 per head therefore amounted to \$2.09, almost the equivalent of the tax alone. In addition, as a corn farmer he received corn benefit payments that were considerably in excess of the depressing effect of the corn tax. Whether the smaller crops of hogs and corn brought in more or less money to the farmer is considered in a later section of this paper.

What about the non-contract signer? At first thought, it ap-

¹¹ Figure 3 is not identical with the corresponding figure in the earlier article referred to above and in the preceding footnote. The earlier chart was based on three series (1) hog prices at Chicago, (2) federal inspected slaughter multiplied by average weights at Chicago, and (3) industrial production (average of current year and preceding year, current year given weight of 2, preceding year given weight of 1). More thorough study since has led us to replace these three series with somewhat more comprehensive data (1) the cost of hogs slaughtered under federal inspection, (2) total live weight of hogs slaughtered under federal inspection, and (3) industrial payrolls, and to remove some errors in the earlier industrial production series. All the data in both charts are on a hog-year (October to September, inclusive) basis. In addition, we decided to reverse the order of the two sections of the chart, so as to end up with attention focused on the supply-price section.

These changes, however, merely give us a somewhat closer grouping of the dots about the regression lines. The lines themselves remain substantially the same as before. If the 1933-34 data shown in the earlier chart are added to the earlier chart, the 1933-34 dot falls below the line, and requires the addition of the tax to bring it up to the line, the same as in the chart shown in the present paper.

pears that the depressing effect of the tax on the price of hogs does mean a net loss to him. He receives no benefit payments to offset it. He is benefited, however, by the increase in price resulting from the cooperator's reduced production of hogs, when in the course of a year or two that reduction eventuates in reduced

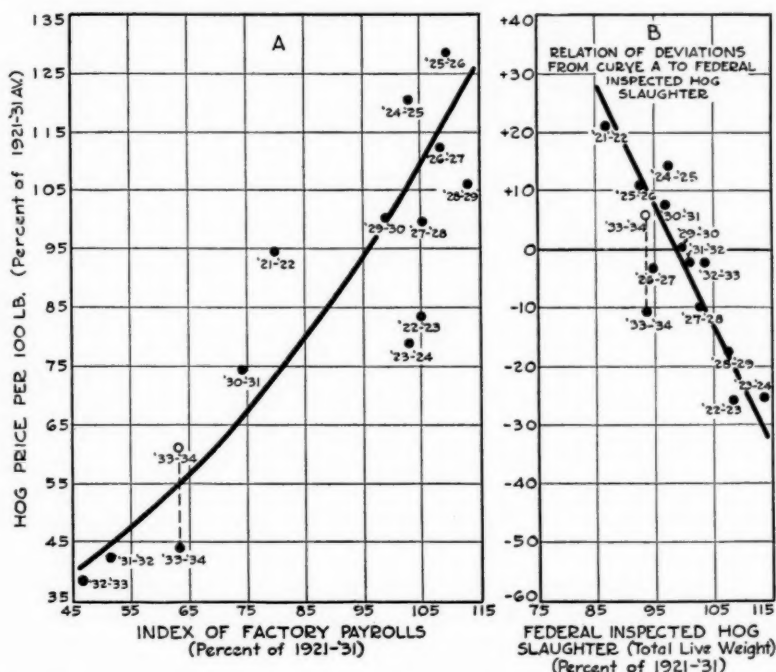


FIGURE 3. Relation between supplies and prices of hogs in the United States.

market supplies. If this increase is greater than the depressing effect of the tax, he will receive a net benefit. And he is free to produce and sell as many hogs as he wishes at that higher price.

Incidence of the Effects of the Tax

We turn now to the second major group of questions—those relating to the incidence of the effects of the tax. By “effects” is meant the corn and hog reductions prescribed by the AAA, and the various individual responses of farmers and others not thus prescribed. The incidence of the effects of the tax upon the packer and the retailer is relatively easy to show. We will deal with those two groups first, and then consider the incidence upon the consumer, and finally, upon the farmer.

Packer's Gross and Net Income Reduced

As soon as the reductions under the AAA begin to show up in the form of reduced market receipts of hogs, the most obvious "effect of the tax" upon the packers will be the reduction of their total volume of hog slaughter.

Meat slaughtering capacity in the United States is already ample, if not excessive. It will become clearly excessive when hog supplies are reduced by the AAA program. And it seems likely that packers will slaughter a smaller proportion of the reduced production of hogs than formerly. We have already seen how the packer has widened his margin by the amount of the processing tax. This substantial widening of the margin will probably increase the proportion of farm slaughter and local peddling of pork products, though the regulation that each producer can slaughter and sell only 300 pounds of pork products tax-exempt will tend to keep this increase within moderate bounds. This reduction in volume of hog slaughter will mean a corresponding reduction in packer's gross receipts from hog slaughtering. On the face of it, this appears to be a case where the tax itself is not felt, but the effects of the tax will be felt.

It is interesting to speculate on the way in which the packers will meet the problem of reduced hog supplies. Who will feel the reduction most—the "Big Four," or the interior packers in the heart of the corn belt, or the numerous local packers most heavily concentrated in the East? The Big Four have an elaborate overhead branch distributing system to maintain, in addition to their packing plants; their overhead costs are therefore high; they may feel the effects of the reduction keenly. On the other hand, they slaughter or process other products—beef, poultry, dairy products, etc.—on an extensive scale, as well as hogs, so that even a substantial reduction in hog slaughter would result in only a comparatively small reduction in their total volume of business. I do not know enough about the packing industry to hazard a guess concerning this question. I draw it to your attention, however, because if hog supplies are reduced for a considerable number of years in the future, the effects on the packing industry are likely to be pronounced.

The incidence upon the packer's *net* income is more difficult to determine. A reduction in volume of slaughter will lead packers to cut down their current expenses, for labor, etc., to a certain extent. How much their total expenses will be thus reduced cannot be easily estimated. It seems inevitable, however, since their cur-

rent expenses are only a part of their total expenses, overhead expenses running on the same as before, that their total expenses cannot be reduced as much as their total income; it appears, then, that their profits are likely to decrease, unless they widen their operating margins.

Retailer's Gross and Net Income Little Affected

Retailers handle so many products that a reduction in the volume of any one product is not likely to affect their gross income much. This is particularly true of general retailers, who, if they have less of one food for sale, will supply the consumer with more of some other. It is partially true even of retail meat markets; if the supply of pork is deficient, consumers will turn first to other meats; they will turn to other non-meat foods only when all meats are scarce.

Incidence on Consumers

When we come to study the effect of reduced supplies of pork on consumers and producers, we must study the elasticity of demand and supply curves. Here we encounter some difficulties.

The most troublesome difficulties exist in the field of demand. What is an accurate measure of consumer demand for pork? The measure used in Figure 3 is the index of "consumers' incomes."¹² It is based upon estimates of gross incomes of corporations (because of this basis, O. C. Stine has recently objected to its designation as "consumers' incomes"). This series is only one measure of consumer demand for pork. Another measure is industrial production. Still another is factory payrolls.

The index of "consumers' incomes" gives good results in Figure 2, which deals with pork prices. In the preparation of my earlier article, however, I was puzzled by the fact that the index did not work out well in the figure dealing with *hog* prices. For that chart I had to use a different index, weighted industrial production (replaced since that time, in the present article, by factory payrolls). I was also puzzled by the fact that, conversely, neither industrial production nor payrolls, which gave well defined results in Figure 3 (for hogs) worked out very well in Figure 2 (for pork). I could not understand why the same index of demand did not work equally well for hogs as for pork.

Investigation shortly disclosed the reason why the index of payrolls did not work well with pork. There was a pronounced upward trend in the index of pork consumption during the period

¹² This index is published in Senate Document No. 184, 72nd Congress, 2nd Session, "Economic Situation of Hog Producers," February 9, 1933, p. 82. Recent data from Preston Richards, Bureau of Agricultural Economics, United States Department of Agriculture.

from 1921 to 1933. This causes a "drift to the right" in the scatter diagram, which obscures the relationship between supply and price. When, however, the upward trend is removed from the pork consumption data, and the index of payrolls is used to represent demand, the relationship emerges clearly defined. The elasticity of the demand for pork thus revealed, however, is less than unity; it is only $-.55$. This is little more than the elasticity of the demand for hogs (namely $-.50$) shown in Figure 3.

The reason why the use of the index of payrolls gives a different elasticity from that obtained by the use of consumer incomes may be this: there is a very pronounced upward trend in the index of consumer incomes, and the inter-correlation of this trend with the upward trend in pork consumption affects the elasticity of the curve of relationship between pork supplies and prices. (This difficulty does not arise in the use of the *hog* price charts, because there is no upward trend in hog production). When most of the upward trend in the index of "consumer's incomes" is removed, as well as in the index of pork consumption, the relationship becomes clearly defined again, but the elasticity is $-.72$.

So there we are, with elasticities of demand for pork varying from $-.55$ to $-.72$ and -1.0 , according to the index of demand used. Which elasticity is the true elasticity? Or, since the elasticity obtained depends upon the index of demand used, which is the most accurate index of the demand for pork (1) the index of "consumer's incomes" i.e. corporate incomes, with the upward trend left in, or (2) with the trend removed, or (3) the index of payrolls?

I do not know. Further research will have to be conducted before the true elasticity of the demand for pork can be unequivocally stated. At the present time, I can only draw these difficulties to your attention, not resolve them. As a provisional basis for this section of my paper, however, I will suggest that I feel the greater confidence in results drawn from data that have been manipulated least. That is, confronted with the necessity of making a provisional choice between different results, some obtained from data after removal of trend and some from data in their original form, I feel safer using the latter. I prefer to base my conclusions on the demand curve for pork shown in Figure 2, with its elasticity of unity, bearing in mind that these conclusions may require modification should subsequent research show that the demand is somewhat less than unity.¹³

¹³ Two days before this paper was presented, L. H. Bean gave a talk in Chicago in which he exhibited a chart showing a demand curve for pork, the index of demand being total national income. This index resulted in a demand curve with an elasticity of $-.89$. The dot for 1934, inserted in his chart, falls slightly below the line, as in Figure 2, but closer to it than the dot in Figure 2.

On the basis of Figure 2, therefore, we may provisionally conclude that when pork supplies are reduced, the price that the consumer is willing to pay rises by an equal percentage. If supplies are reduced 5 per cent, prices rise 5 per cent; if they are reduced 10 per cent, prices rise 10 per cent; and so on down to 15 per cent, the greatest reduction that has taken place during that time. A similar inverse one-to-one relationship holds for increases in pork supplies.

This means that the consumer has been paying out approximately equal amounts of money for pork each year. If any of the natural reductions in pork supplies during the period from 1922 to 1933 had been the result of an AAA program, financed by a processing tax, the incidence of the effects of the tax on the consumer would have been this: He would have paid out the same total amount for pork as before, but would have gotten less pork for his money. The consumer would not have paid out any more money for pork, but presumably would have had to spend additional amounts for other food to make up for the reduced quantity of pork.

I have intentionally phrased this section in the past conditional tense, in order to focus attention on the question whether the price and quantity relationships that held from 1921 to 1933 are likely to persist unchanged in the future. This same question arises in the next section also, and we will consider it fully there.

Incidence of Reduced Hog Supplies on Farmers

We turn now to consider the final question, the effect of reduced hog supplies on the gross and net income of hog farmers. Our first step is to discuss the demand curve for hogs analogous to the demand curve for pork considered in the preceding section. And in considering this hog demand curve, we encounter difficulties like those encountered in setting up the demand curve for pork; but these difficulties can be resolved. The problems here do not arise from the measurement of demand, as in the section dealing with the demand curve for pork; they arise in connection with the measurement of hog production.

The most satisfactory measure of hog production for our purposes is, I believe, the measure used in Figure 3; that is, the total weight of hogs slaughtered under federal inspection. But there are two others which should also be considered, and both of them result in somewhat different elasticities of demand for hogs. We may number these measures (1), (2) and (3). Measure (1) is the total weight of hogs slaughtered under Federal inspection (used

in Figure 4). Measure (2) is total hog slaughter, as estimated annually by the Bureau of Agricultural Economics. Measure (3) is provided by the spring and fall pig crop surveys.

Only 64 per cent of the total slaughter of hogs is conducted under federal inspection. One might think, therefore, that total slaughter would be a better measure than slaughter under federal inspection. There are two or three objections, however, to the use of total slaughter. In the first place, federally inspected slaughter is an actual count, while total slaughter can only be estimated. Second, total slaughter figures are not available as currently as federally inspected slaughter figures,¹⁴ and are published only on an annual calendar-year basis, not on monthly basis like the federally inspected slaughter figures. And finally, they include hog slaughter on the farm for farm consumption, that is, hogs that are slaughtered but not sold; it is a debatable question whether these hogs should be included in a study of the effects of a program on hog farmer's money incomes.

The third measure of hog slaughter is the pig survey spring and fall pig crop data. When these spring and fall data are combined (with proper weights) subjected to slight corrections, and reduced to index form,¹⁵ they show almost as clear-cut a relation with supplies and prices as the other measures of hog production. And by their nature, they are available, not only currently but (with proper adjustments for prospective average hog weights) for a year in advance.

These three measures of hog slaughter (1) total weight of federally inspected slaughter, (2) total slaughter, and (3) the combined spring and fall pig crops, when plotted against factory payrolls and hog prices, all yield well defined curves. The respective elasticities are, for (1) $-.50$ for (2) $-.35$ to $-.45$,¹⁶ and for (3) $-.47$.

These elasticities are nearly enough in agreement that one may accept approximately $-.50$ as the elasticity of the demand for hogs. On this basis, it is apparent that a small crop of hogs brings in more total income to the hog farmer than an average or large crop; for a reduction of 10 per cent in hog supplies raises hog prices 20 per cent, so that the total income is $90 \times 120 = 10,800$, or 8 per cent more than for an average crop. The effect upon the hog farmer's net income, is, of course, more marked than upon

¹⁴ The 1934 Year Book of Agriculture gives the figures only up to and including 1932: I have only recently received the data for 1933, direct from C. A. Burmeister.

¹⁵ D. S. Andrews, of the Commercial Research Department of Swift and Co., drew this matter to my attention, and S. W. Russell of the same department was kind enough to send me the indexes they had prepared.

¹⁶ According to the importance attached to the dot for 1923.

his gross income. This is true, not only because the "base" is smaller, but also because the costs of producing a small crop of hogs are somewhat less than the costs of producing an average crop. The farmer's net income, therefore, is substantially increased by hog reduction.

Effect of Reduction upon Demand Curve

There is one more important question to be considered. The preceding analysis has been based upon data for the period from 1921 to 1934. The question is this: Can the results of this analysis be projected into the future? Are the relationships that existed in the past 15 years likely to persist unchanged in the future?

There are several reasons why the relationships may not hold unchanged. Some believe that the effects of the depression have so affected price relationships that pre-depression analyses are worse than useless because they are likely to be misleading. Others believe that the chief effect of the depression is the decline in the general price level that went with it; and that since the price level is now nearly half way back to the 1926 level, and is likely to continue to rise, the chief effect of the depression may be wiped out in the process of recovery, so that pre-depression relationships will become valid again.

I myself am inclined toward the latter view. I am inclined to place more reliance on pre-depression analyses than some of my colleagues. But I am concerned about a different and perhaps more fundamental question; and that is, the effect of a somewhat permanent reduction in pork supplies upon the elasticity of the demand for pork and the location of the curve as a whole. It is well known that the elasticity of supply varies with the length of time considered. The same thing is true of the elasticity of demand. It also varies with the length of time considered.

Some consumer habits are slow to change. If we have become accustomed to bacon for breakfast, we dislike to change our menu when bacon is scarce and high in price. We will pay high prices for a small supply rather than change our habits suddenly. But if scarcity and high prices continue for several months and give every indication of continuing for several years, we are likely to weaken and change our menu rather permanently. We may change it for the duration of the scarcity, which would render our demand more elastic. We may go further, and develop a taste for some other breakfast delicacy that will replace our taste for bacon even if bacon supplies later become plentiful and low in price; this would shift the whole curve to the left.

This question should be given careful consideration. If it should be found that the danger from this source is slight, the case for continued reduction is made that much stronger. If it should be found that the danger is considerable, that should be regarded, it seems to me, as a factor in the long range hog situation, rather than as a shortcoming of the AAA program, which is essentially an emergency program. The immediate benefits of this program are twofold (1) the greater total and net income which it brings to hog farmers, and (2) the less intensive cropping which it encourages and makes economically possible. At the present time, owing to the emergency, benefit (1), the enhancement of incomes, appears to hog farmers to be the strongest feature of the program. It seems to me that if the enhancement of incomes should become somewhat less in the future, owing to possible changes in elasticity and position of the demand curve, the second benefit of the program, the soil and energy conservation feature, would emerge more clearly, warranting general support of the program on that basis alone. The AAA would become more flexible, and would gradually merge into a long time land utilization program; it would aim, not at a uniform crop reduction, but at a regionally differentiated reduction, not primarily for raising agricultural prices but primarily for checking further exploitation of our agricultural resources.

During the depression, agriculture is well within its rights in reducing production and supporting its prices; when industrial production is reduced 40 per cent, as it was at the bottom of the depression, corn-and-hog agriculture is certainly entitled to the 10 or 15 per cent for which it has been striving. But after the depression is over, agriculture will base its long range program for some form of controlled production, not, let us hope, upon agriculture's need of higher prices, but on the general social need for the most economic use of the agricultural plant as a whole. That, it seems to me, is the basis that will eventually replace parity price, and will be a basis to which all can subscribe without reservation. And on that basis, the first necessity will be to use the AAA to curb the rapid exploitation and depletion of our agricultural resources that appears inevitable under free and unlimited individual competition.

DISCUSSION BY J. ROY BLOUGH

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Dr. Shepherd's excellent paper is divided into two principal parts: The first dealing with the immediate or short-time incidence of the

processing tax on hogs; the second dealing with its long-time effects. Let us examine separately these two parts.

His conclusion as to the immediate incidence of the tax is that it is not on the packers, the retailers or the consumers but on the farmer producers. It can not be on the packers because broadly speaking they have widened their margins by an amount equal to the tax. It can not be on the retailers because the trend of the spread between wholesale and retail pork prices has not changed. It is not on the consumer because his demand has an elasticity of unity while the supply of hogs has practically no elasticity in the short run.

The evidence submitted for concluding that the immediate incidence is not on the packers would seem to be adequate in indicating that no large part of the tax is borne by them. However, it does not appear conclusive that no part of the tax may be borne by them. Figure 1 indicates seasonal elements of variation in margins but the period is too short to show a comparison with margins in the corresponding period in previous years. Furthermore, there is no indication that consideration was given to the higher costs to packers caused by the introduction of the codes of fair competition under which the packers' margins should be larger.¹ This latter statement also applies to the margins of retailers. I am not stating that packers and retailers actually bore any part of the immediate tax but rather that the evidence is not complete that they did not.

Without stopping at this time to analyze Figure 2 from which is derived a measure of elasticity of demand, it seems to me to be a logical conclusion that the great bulk of the tax falls in the first instance on the producer. I am not entirely convinced, from the evidence presented, that the mechanism of price fixing works so precisely that none of the tax may fall on the consumer. It is clear from Figure 1 that when the processing tax was imposed and each time it was increased, the immediate effect was not a decrease in the prices of hogs to the farmer but an increase in the prices of hog products. For the moment at least, the incidence was on the consumer rather than the producer. May not some of the tax have continued to rest on him due to imperfections in competition?

My general conclusion on the immediate incidence of the tax is, thus, that Dr. Shepherd has made his case regarding the bulk of the tax but that there are some minor aspects which are not adequately supported.

I turn now to the question of long run incidence. In the early part of his paper, the author sets the theme for the second main division of the paper as being "the incidence of the effects of the tax, after they have had time to work out." But the word "effects" is defined to mean "the corn and hog reductions prescribed by the AAA and the various individual responses of farmers and others not thus prescribed." His discussion deals exclusively with the effects of the reductions prescribed by the AAA on corn and hog production. This, however, is a very different thing from the incidence of the processing tax itself. The reduction in corn and hog production is an effect of the processing tax on hogs only in the general sense that the reduction was financed by the tax. It would be entirely possible to impose the processing taxes without prescribing crop reductions. It would likewise be entirely possible to prescribe crop

¹ In the discussion from the floor it was stated that the packers had not signed a code.

reductions and finance them from some source other than the processing taxes. The author, in this part of the paper, has dropped the processing taxes out of consideration and is dealing only with the reduction program. I shall return to the long time incidence of the processing taxes later and for the present consider his discussion of the incidence of the reduction program.

The author's general conclusions are that the burden of the reduction program is on the consumer who will pay higher prices for pork products, that the benefit is to the farmer who will receive higher prices for his hogs, and that the packers and retailers may or may not widen their margins to make up for the smaller number of hogs slaughtered. To this perhaps no one will take exception.

More specifically, he discusses how much higher prices to consumers will go and how much higher prices to farmers will go. His conclusion is that probably about the same total amount will be spent on pork regardless of the amount of pork consumed, with prices moving inversely to consumption to achieve this result. This conclusion is based on the calculation of demand curves by relating pork prices, consumption of pork, and indexes of consumers' incomes. Somewhat different indexes and methods were applied in three cases, deriving elasticities of demand for pork varying from $-.55$ to $-.72$ and -1.0 .

The author prefers the method giving an elasticity of -1.0 . This index employs the gross income of corporations as representing consumers' incomes. Not only is this designation subject to objection as the author has indicated, but the use of this index in this manner is subject to criticism. Gross income of corporations includes much that is not consumers' income and excludes much that is consumers' income. It includes gross income later paid out either to foreign countries for goods imported, or as dividends and interest which were probably reinvested rather than spent for consumption and it includes also corporate surpluses not paid out at all within the year. The relative proportions of these items to the total are not uniform from year to year. For example, in the few years preceding 1930 corporate surpluses were being built up at a rapid rate while since that time they have been reduced and accumulation of previous years have been paid out and spent for consumption. Again, non-corporate incomes are not included, and no account is taken of the varying and increasing proportions of total income represented by corporate income. Accordingly, this index of consumers' incomes which the author appears to prefer is not accurately representative of such incomes and doubt is accordingly cast on the results. The choice of words in this section of the paper indicates a tendency, which I believe was not intended but which often occurs in statistical work and which I accordingly mention. This is the tendency to search for some index which will give "good results." While experimentation of this kind with statistical data is often very fruitful it involves the dangerous assumption that there are certain results to be found if only the proper method is used. The fact, however, may be that the results expected are non-existent and that manipulating data to secure them gives misleading results. Thus, it may be that over the ten- or eleven-year period employed—a period involving prosperity and depression—there are variations in the elasticity of de-

mand of such magnitude as to make impossible the determination of a measure of elasticity by the method employed.

The author's conclusion as to the effect of the reduction program on farmers is that the gross income of farmers will be increased somewhat and the net income will be increased more, these results being due to the increase in prices and the decrease in the costs of producing a smaller crop. This conclusion rests on a statistical process similar to that employed in computing elasticity of consumer demand and is subject to the same reservations.

In view of these considerations the author has properly presented his conclusions as to the rise in prices and incomes in conditional form.

It should be observed that the incidence of the reduction program for hogs may be affected by the reduction programs in competing commodities. This was apparently considered beyond the scope of the paper.

Let us return to the question of the long time incidence of the processing tax as such distinguished from the incidence of the reduction program. As pointed out above the tax might be imposed either in conjunction with or separate from the reduction program. The present processing tax is imposed as a means of financing the reduction program. There seems every reason to believe that the long time incidence of the bulk of the tax at least is on the producer and that the farmers are thus in effect paying themselves the reduction benefits. The reasoning back of this conclusion is that in the long run a tax is ordinarily shifted forward to the consumer only by its effect in reducing supply. The processing tax in this case does not reduce the supply of hogs or have any effect whatsoever on it. The supply is determined by the reduction program, not by the tax.

If, however, the processing tax were imposed not to finance reduction contracts but as a general tax for the ordinary uses of government and if no reduction program were in force and no benefits were paid, the incidence of the tax would undoubtedly be to a considerable extent on the consumer, since the tax would constitute an increase in the cost of production if shifted to the farmer and would act to decrease the supply of hogs with resultant rise in price. There is no time here, if indeed the facts are available, for an analysis of the conditions of cost and other factors determining the amount of the rise in price which would be caused by such a tax.

May I now pass to another topic related to although not so directly bearing on the paper, namely, the profound economic and political significance of the incidence of the processing tax on hogs, as now employed to finance the crop reduction program? This is not merely an academic matter but one of rather far reaching importance.

If the incidence of the tax is on the farmers producing the taxed commodities, the tax serves merely as a means of inducing all producers to join in the crop reduction program. It is in effect a huge checkoff system such as is used to collect dues by the miners' union. In that system the contract between the employers and the union provides that the employer shall deduct the union dues from the pay envelopes of the men. The farmer has no employer, so the government collects the dues from the processors in order to persuade all producers to join the group in

imposing restrictions of output similar to those which unions enforce on laborers and which trade agreements enforce on business men.

If, however, the incidence of the tax is on the consumer, the processing taxes amount to a subsidy that one great class of citizens is obliged to pay to another great class of citizens to induce this latter class to restrict output and raise prices. There is no previous example in our history of subsidies on this scale, or to my knowledge of any subsidy the purpose of which was to bring about reduced instead of increased production. Tariffs have had the effect of great subsidies but the amounts collected have not been paid to the benefited groups and the effect has been to increase the production of the benefited group. If the incidence of the processing taxes is on consumers a great precedent has been set for the redistribution of wealth and income among producing classes by the taxation-subsidy system.

If, by chance, the incidence is on the packers or other middlemen groups, the processing taxes might properly be considered an epoch-making step in the reduction of the margins of the middlemen in the processing and marketing of farm products.

Suppose that the incidence of processing taxes is on consumers. There is then no reason why the consumers of particular farm products should be singled out to finance a program of which the only justification is its general social value. The processing taxes bear no relation to ability, and so far as benefit is concerned the consumers of these taxes are called upon to bear the total burden both in taxes and higher prices due to the crop reduction program, while society in general is expected to reap the benefits. Accordingly, if the incidence of the processing taxes is on the consumer they constitute an illogical and unjust method of financing the crop reduction program. There might well arise extreme resentment against a program that penalizes the consumer not only by a reduction in supply but also by forcing him to pay the subsidy with which the government entices the farmer to participate in the program. This resentment might very possibly result in an overthrow of the whole program.

On the other hand, if the incidence is on the farmer, as it appears to be, he is getting a good deal less from the program than he may expect, since, if I am correctly informed, many farmers, at least, expect to have their income increased both through higher prices and cash benefits. It would no doubt come as a shock to many of them to discover that they are paying themselves the cash benefits of the reduction program. Resentment against a program that thus led them into believing that they would get something for nothing might result in its overthrow in spite of its benefits through crop reduction. Or, again, it might lead to a strong demand for the repeal of the processing taxes and the substitution of some other source of revenue.

In passing, it may be observed that if the incidence of the processing taxes is believed to be on farmers, the task of convincing the United States Supreme Court that the taxes represent a constitutional exercise of the taxing power may be easier than would otherwise be the case. The court commonly appears to consider the fairness of a tax as well as strictly legal precedents in deciding questions of constitutionality. It seems eminently fair that farmers should bear the burden of financing a program that will presumably bring them benefits.

A minor but interesting aspect of the incidence of the processing tax on hogs is its significance in relation to the export of pork upon which the processing tax is refunded. Let us consider the first stages of the program, during which the processing tax is imposed but production is not curtailed. If the incidence of the tax is on the consumer, the price of pork products is increased by roughly the amount of the tax. When the pork products enter international trade the tax is refunded leaving the packers with neither advantage nor disadvantage in exporting. If, however, the incidence of the tax is on the producer, the situation is different. There can be no distinction between the price of live hogs intended for the domestic market and of those for foreign trade. Accordingly, the tax will be shifted to the producer regardless of whether the products are to be exported or not. The price of pork in this country would remain the same as before the imposition of the tax. When the tax was refunded at the time of export it would constitute a subsidy of no mean proportions, this subsidy incidentally being paid by the farmer. If there were a free market for our pork abroad the increased sales made possible by a lower price made possible in turn by the refunding of the tax would remove pork supplies from domestic consumption and thus increase the price of hogs to the farmer. With our sales of pork abroad largely limited by quotas, however, sales can not readily increase and the packer would appear to be the sole beneficiary at the expense of the farmers.

In the later stages of the program when the crop reduction measures have become effective, the benefit to the packers becomes of less significance, because with higher domestic prices for pork the packers will likely be obliged to hold their selling price abroad below the domestic price in order to sell their product. This they are enabled to do through the refund of the tax, but in so doing the benefit to them should be expected to decrease or be wiped out unless pork prices in other producing countries rise in the same degree as in this country.

It is perhaps apparent that I have approached this subject not as an agricultural economist, but as a student of taxation. Many tax economists oppose the employment of tax measures to control industry or redistribute wealth. I can not agree with that position, believing that any power of government may properly be employed to accomplish any legitimate governmental purpose. The processing taxes represent a powerful instrument of general economic control and I have no doubt will be employed in various ways in the future.

It should perhaps be observed, however, that the use of the taxes to finance a program of crop reduction involves a serious danger. It would be a most serious matter if the farmers became convinced that the way to prosperity lay in continued crop reduction. If every group in the community, seeing the farmer's success, were to adopt the same philosophy we should soon lower our standard of living to a serious degree. Crop reduction is no doubt desirable under certain conditions as an emergency measure or as an instrument in group bargaining but as a philosophy of wealth or a long time program, it has inherent dangers of the greatest gravity.

THE CITRUS MARKETING AGREEMENTS¹

A. W. McKAY

AGRICULTURAL ADJUSTMENT ADMINISTRATION

Citrus marketing agreements covering the California-Arizona, Texas and Florida producing areas are now in effect. In addition a marketing agreement for citrus fruit grown in Puerto Rico has been tentatively approved. These four marketing agreements make possible regulation of shipments of citrus fruit from the several producing areas. They exempt shippers from liability under anti-trust statutes for acts performed in accordance with the terms of the agreements. Licenses issued under the agricultural adjustment act make mandatory the compliance of all shippers. All the agreements are similar in purpose, but present some important differences in methods.

The California-Arizona and Texas agreements are between shippers of citrus fruit and the Secretary of Agriculture. The Florida agreement and the tentatively approved Puerto Rico agreement are between growers and shippers and the Secretary. Under an amendment to the agricultural adjustment act, passed subsequently to the approval of the California-Arizona and Texas document, growers as well as shippers may become parties to marketing agreements.

The agreements are administered by committees of growers and shippers. The California-Arizona agreement is administered by two committees—an advisory committee of eight growers and a distribution committee of eight men engaged in the marketing of citrus fruit. Four members of both committees are selected by the California Fruit Growers Exchange, two by the Mutual Orange Distributors, and two by independent shippers. The Texas committee is made up of seven men, six shipper representatives and one grower. One member is selected by each of three cooperative groups, three are elected by independent shippers, and the seventh, who must be a grower not affiliated with any marketing organization, is elected by the other six members of the committee.

The new Florida agreement provides for a committee of thirteen of which seven are growers selected by the Secretary to represent specified districts in the citrus area. The six shipper members, after this season, will be elected by shippers on the basis

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 28, 1934.

of the quantity of fruit shipped during the previous season. For example, any shipper or group of shippers who this year handled as much as one-sixth of the total quantity shipped out of the state may apply to the Secretary for recognition as an elective body, and upon obtaining such recognition, may elect one member of the committee. Members selected by shippers are subject to the approval of the Secretary and the Secretary may appoint one or more shipper representatives to the Committee in the event that six are not elected under the method described. A member of the Committee, or the organization he represents, must be a party to the marketing agreement in order to be eligible to serve.

The Puerto Rico agreement, when approved, will be administered by a committee of five elected by citrus growers at a general election. Three members will be elected by growers voting in accordance with the quantity produced by each during the previous season. Two are to be selected by a "one-man one vote" election.

The general powers of the committees are to supervise the performance of the agreement, to elect necessary officers, appoint a manager, and other employees, and to investigate suspected violations of the agreements.

Regulation of Shipments

The heart of every agreement is the provision for the proration of shipments. Briefly, all agreements provide that the committee, after due notice, may determine the quantity of citrus fruit which it is advisable to ship during any period. The practice followed is to establish a proration period of one week and to specify the number of carloads which may be shipped during the week. California-Arizona is the only area from which total shipments have been prorated for any length of time.

After determining the total number of cars that may be shipped, the Committee must allot shipments equitably to each shipper. Under the California-Arizona agreement, and the tentatively approved Puerto Rico agreement, the basis of allotments is fruit controlled, either by ownership or through a marketing contract. In Florida and Texas the large number of operators who buy their supplies from week to week makes it impossible to make allotments solely on the basis of fruit controlled.

Consequently, in the two latter states, a shipper's allotment is determined either by the quantity of fruit he controls or by his past performance; that is, by the average quantity he has shipped during a two-year base period. Fruit controlled, or past

performance, whichever is the greater, determines the allotment made to any shipper. Provision is made for adjustment of past performance to the current crop and for successive readjustments which make the current performance of a shipper a factor in allotments as the season progresses. Fruit controlled by shippers is also adjusted by deducting consecutively "fruit disposed of in any manner whatsoever." Each shipper's portion of the total advisable shipments during any period is determined by multiplying this total by the shipper's "prorate percentage," which is calculated in accordance with one of the methods described.

Equitable allotments to shippers constitute a problem in any proration plan. Securing equity among growers is also difficult, particularly under Texas and Florida conditions. In Puerto Rico the majority of the growers are also shippers. In California and Arizona over 80 per cent of the fruit is shipped by cooperatives, and members are assured of equitable treatment within their own groups.

Shippers who buy the fruit they handle, however, are under no compulsion to distribute their allotments among the growers they customarily serve. Under extreme conditions all the fruit of Grower A might be shipped, while Grower B would be unable to find a market for his crop.

The California-Arizona agreement attempts to meet this problem by permitting growers whose fruit is not controlled by any shipper to apply for allotments. These allotments may be accumulated for two proration periods and may then be transferred to a shipper, or the grower may ship the fruit allotted to him, in which case he becomes a shipper in his own right.

The Florida and Texas agreements now provide for the issuing of certificates to every grower. The certificate specifies the estimated number of boxes of each kind and variety of fruit, produced by the grower. A shipper must file with the Control Committee growers' certificates covering the quantity of fruit he desires to ship during any period. If his allotment is based on fruit controlled, he will get credit only for such fruit as is represented by certificates filed with the control committee. Therefore, a degree of competition is assured for the grower's fruit.

Except for grade-and-size restrictions which will be discussed later, there is no certain method provided in the Florida and Texas agreements of assuring grower's equitable participation in the market. An elaborate plan was presented in the agreement on which a hearing was held in Florida. Briefly this plan pro-

vided (1) that the committee should determine at the beginning of the season the percentage of the crop which must be withheld, and (2) that the grower certificates should specify the number of boxes, of the total which the certificate represented, which might be shipped by licensed shippers. This plan was finally rejected because it is a practical impossibility to determine at the beginning of the season what part of the crop may be profitably marketed; and also because the inaccuracy of individual grove estimates would create wide inequalities between growers. The job of checking and rechecking the crop on possibly several thousand individual groves appeared too large an order for the committee.

Both the Florida and Texas agreements, however, give the control committee authority to limit the shipments of certain grades and sizes of fruit. This appears to be a practical plan for determining from time to time the quantity as well as the quality of the fruit which shall be held off the market. Under this provision the committee may permit only fruit meeting the requirements of U. S. No. 2 or higher grades to be shipped. The committee may also restrict or prohibit the shipment of fruit of such sizes as it may specify.

A restriction of this kind bears heavily on the grower whose fruit for any reason is inferior in quality. Opportunity accordingly is given growers who are unduly penalized to apply for exemption after two-thirds of the crop, affected by grade-and-size regulations, has been shipped.

Allotments to Auction Markets

The Florida agreement also gives the committee authority to prorate shipments to ten markets where fruit auctions are conducted. This provision is not found in any other citrus agreement. The proponents of the "auction prorate" claim that indiscriminate shipping to auction destroys values in the larger centers and in turn prices in outlying cities are depressed. The development of a refrigerated steamship service from Florida ports and the comparatively low freight rate applying to shipments by boat has been conducive to congestion in the northern seaboard markets, particularly New York.

Allotments to the auction markets are based primarily on shipments made to those markets by the distributor during previous seasons. Under the present Florida agreement an auction prorate can be made only when a volume prorate is in effect unless the prior approval of the Secretary to a separate auction prorate is obtained.

Unless total shipments from the state are restricted by a volume prorate, restriction of shipments to auction markets tend to create more favorable prices in those markets than are found in the smaller cities which may be receiving excessive shipments. Do the more favorable markets belong to the shippers in the proportion in which they have sold in these markets during previous seasons, or should all shippers be permitted to participate in proportion to their total shipments? Whichever way this question is answered, strenuous objections are raised by individuals adversely affected.

In addition, an auction prorate directly affects trade relationships, and cannot take into account the changeable character of such relationships. There is often reasonable ground for complaint on this account. A shipper, because of his relationship with a wholesale receiver, may have sold a large number of cars in Chicago last season. This year this connection may be discontinued, and the shipper may make similar arrangements with wholesalers in Philadelphia and New York. His past performance under an auction prorate may permit him to make heavy shipments to Chicago and not allow him to ship a sufficient number of cars to New York and Philadelphia to enable him to carry out his agreements. It appears desirable, therefore, to use the auction prorate as an adjunct to a volume prorate and only in emergencies to prevent congestion in the larger markets.

National Stabilization

The three agreements now in effect, and the tentatively approved agreement for Puerto Rico, contains similar articles setting up a National Stabilization Committee for oranges and a National Stabilization Committee for grapefruit. Provision is made for the appointment of a National Citrus Coordinator by agreement between the two committees, and with the approval of the Secretary of Agriculture.

National proration of oranges or grapefruit may be established by the appropriate committee, with the approval of the Secretary, by a vote of seven of the eleven members of the national committee for oranges, or by a vote of six of the ten members of the national committee for grapefruit. Upon the institution of national proration for oranges or grapefruit, the appropriate national committee may limit the quantity which may be shipped, and this quantity shall be allocated among the various states and Puerto Rico, respectively, "on the basis of the fruit available for shipment or fruit shipped in any period."

No action has yet been taken under the national stabilization plan. The national committees have met on two occasions, and discussed the problems of the several areas, with a resulting clarification of their problems.

The national plan extends and coordinates the control exercised by state committees. It is based on the premise that the production of citrus fruit in the United States is one industry, and that markets can best be stabilized by the cooperation of all areas. The object is to obtain reasonably profitable returns for the efficient producer wherever he is located. This is the point of view which a Federal agency must take in considering the problem.

Objections to the national plan come from consideration of the advantages, real or imaginary, of a particular area. Florida can ship oranges to the large markets of the East at less cost than can California. Texas may be able to produce grapefruit at less cost than Florida can, and has an advantage in several middle western markets. The development of a boat service from Texas to New York, which is promised for early next year, will neutralize the advantage Florida now has with regard to grapefruit shipments to eastern markets.

It is difficult to see how the present advantages of any area will be affected by national proration. The area with low production costs and comparatively low freight rates will continue under national proration to obtain a greater net return for its growers, provided the product sells for the same price, than will the area with higher costs. The point is, shall this net return be made profitable through regulation, or shall it continue at unprofitable levels?

Certain individuals no doubt consider it advisable to follow the theory of the survival of the fittest. If that theory is to be followed to its logical conclusion all regulations, state or national, are a handicap in what is after all a finish fight and marketing agreements are useless. If the theory of regulation is to be followed, it should also be followed through logically to national control.

The situation which the citrus marketing agreements are attempting to meet is one of greatly increased supplies during a period of low purchasing power. E. W. Braun, in a publication issued last March,² analyzed conditions in the citrus industry in detail. Production of both oranges and grapefruit, particularly grapefruit, will continue to increase for a number of years. There

² "The Citrus Program Under the Agricultural Adjustment Administration," United States Department of Agriculture, March, 1934.

are approximately 535,000 acres of oranges in the United States at the present time, of which 75,000 acres, or 14 per cent, are not yet of bearing age. Of the acreage in bearing 38 per cent is less than 15 years old, and, consequently is not yet in full bearing. Florida now has approximately 260,000 acres of oranges, of which 39,000 acres are not yet of bearing age.

The situation with regard to grapefruit is more serious. There are approximately 212,000 acres of grapefruit trees in the United States. About 30 per cent of the total acreage is not yet in bearing. The present crop, therefore, was produced on 151,000 acres, of which only one-fourth, or about 38,000 acres, is as much as 15 years old, and therefore considered in full production. Florida has about 90,000 acres of grapefruit trees, of which approximately nine per cent is not yet in bearing. In Texas, there are also about 90,000 acres in grapefruit, of which about 47 per cent is not yet of bearing age.

Prices of oranges and grapefruit are determined principally by the supply which is offered and the buying power of consumers. The result is that citrus growers may receive a greater return per box and per acre for a small crop than they do for a large crop. Studies of the price of citrus fruit show that, with a consumer buying power equal to that prevailing during 1931-32, a 10 per cent decrease in the supply of oranges results in a 35 per cent increase in the farm price per box. Stated another way, a crop of 40 million boxes will probably return about 56 million dollars to the orange growers of the United States at the packing house door. A crop of 36 million boxes, or 10 per cent less, would return approximately 69 million dollars to the growers.

The same conditions apply to grapefruit, although the quoted prices of grapefruit during the early part of the season are also affected by the price of oranges. Under 1931-32 conditions commercial shipments of 10 million boxes of grapefruit would bring back 5 million dollars more to the growers than they would get if shipments had been increased to 15 million boxes.

In conclusion, I want to sum up the difficulties and advantages of the citrus program. Reference has been made to some of the operating problems. None of these is insuperable. The opposition of those interests who benefit from heavy shipments, regardless of prices to growers, is to be expected and may be strong enough in certain areas to make efficient operation impossible. There are indications that the producers must be more definitely made a part of the plan. The possible effect of the agreements in increasing production is a problem for which as yet we have no answer.

On the other hand, there is plenty of evidence that the operation of the agreements in California and Florida last season resulted in increased returns, aggregating several million dollars, to the growers of those states. There are indications also that with proper regulations more fruit can be sold at a given price than without regulation. With production due to increase for the next five to ten years, failure to control shipments will result in extremely low prices, distress to all producers, and bankruptcy of many individuals. With regulation, it should be possible to secure reasonable returns for efficient producers.

A DISCUSSION BY C. V. NOBLE

UNIVERSITY OF FLORIDA

Marketing agreements and licenses under the Agricultural Adjustment Administration were well discussed by Messrs. Tapp, Braun and Rasmussen at the meeting of this association a year ago.¹ The discussion was brought down to date and many additional contributions made to the subject by Mr. H. R. Tolley in his address before the American Farm Bureau Federation.² In the paper by Mr. McKay the application of these marketing agreements to citrus in the principal citrus areas seems to be adequately described. There are a few points in connection with these agreements that I should like to bring before this group. Some of these points will be mere expression of opinion; others will be in the form of questions to which I have seen and have no definite answers.

Who should be parties to a citrus marketing agreement? I believe that citrus producers and they only should be parties to a citrus marketing agreement with the Secretary of Agriculture, if the real purpose of the agreement is to benefit citrus producers. Of course, truly cooperative marketing organizations that are representing growers' interests should be classed as growers. The interests of growers, packers and shippers of citrus fruits are too divergent for them to come together in an agreement that will always be to the growers' interest. Human nature must change before these three groups can work in harmony, for example, in volume proration as long as packers and shippers are being reimbursed on the box basis. The action at the last session of the Congress to amend the agricultural adjustment act so that individual producers might be parties to a marketing agreement was commendable. Florida has taken advantage of this action by picking a majority of the members of its control committee from the grower group. In the proposed Puerto Rico agreement, the entire committee will be composed of growers.

I also believe that there should be a referendum of growers to determine their wishes as to the desirability of a marketing agreement. If an agreement is considered desirable by the growers, then the growers should elect their own control committee from among their number. The method used

¹ Journal of Farm Economics, Vol. XVI, No. 1, pp. 99-114.

² Marketing Agreements and Licenses: Their Role in Agricultural Recovery. AAA Release, December 11, 1934.

in selecting the control committee in the proposed Puerto Rico agreement seems a good one.

Mr. McKay states that proration is the heart of all citrus agreements. Is it a sound heart? Prorations in a single area often do not seem desirable because markets are lost to other citrus areas that are not prorating. Or, markets may be lost to competing fruits. How should growers' quotas be arrived at in the event that some growers have outlets for a portion of their fruit through by-products plants? In the present agreements, this by-product fruit does not affect the growers' quota certificates. Does this not penalize the better growers, perhaps, who are not selling any by-product fruit? This same principle would apply in the event of a freeze, hurricane, drought, flood, disease or insect pest epidemic. Those growers who have suffered least in such calamity due to their location or care of their groves, would suffer most from the present prorating method.

What Mr. McKay has said concerning the auction prorate for citrus fruits I would apply to volume prorate for the crop. That is, volume proration should be used only in extreme emergencies when the economic stability of the industry is being or is about to be imperiled by the existing marketing conditions.

National Proration. Authorities on marketing agreements have conceded that such agreements work to best advantage in geographically compact areas of production. How, therefore, to work out a system of national proration for citrus fruit which would be fair to citrus areas so vastly different as California, Texas, Florida and Puerto Rico, I am unable to understand. I do not agree with Mr. McKay that with national proration areas of low costs and low freight rates will obtain greater net returns, provided the product sells for the same price. It will depend upon the economic condition of the commodity in the low cost areas at the time proration is made effective and how severe the cut made in the marketable crop. I cannot see where a straight percentage proration can ever be equitable for low cost areas. Perhaps I am one of the few individuals who still believe in healthy competition for agriculture as well as for other industry.

Again, in the matter of smaller crops bringing more money than larger crops, I doubt if this would be true if we did not have the ups and downs in the size of our crops. It takes the large crops with their accompanying low prices to create new markets and new demands in old markets for a given commodity. After these demands have been established, there is a tendency for them to carry over through seasons of low supply with higher prices. If these higher prices should become established by an artificial manipulation of the supply, would not the consumer return to competing commodities?

Marketing agreements should be recognized as tools to be used only in cases of real emergency. Certainly our farmers cannot hope to get a higher net return by producing less of everything, but there are times when even our most efficient producers need some outside aid to help them through difficulties, the causes of which are often beyond their control.

MARKETING AGREEMENTS FOR VEGETABLES AND FRUITS OTHER THAN CITRUS FRUITS¹

H. R. WELLMAN

AGRICULTURAL ADJUSTMENT ADMINISTRATION

Restoration of the purchasing power of producers of fruits and vegetables through the establishment and maintenance of the balance between the supplies and consumption of these products is sought to be achieved under the agricultural adjustment act by means of marketing agreements. These marketing agreements are between the Secretary of Agriculture and producers, associations of producers, processors, and others engaged in the handling of such commodities, and are supplemented by an accompanying license issued by the Secretary.

Exclusive of oranges and grapefruit, eighteen marketing agreements and licenses on fruits and vegetables are now in effect. These relate to California fresh deciduous tree fruits (except apples), California Tokay grapes, walnuts grown in California, Washington, and Oregon, Northwest fresh deciduous tree fruits, California ripe olives used for canning, California fresh asparagus, Florida celery, California raisins, California dates, cling peaches canned in California, potatoes grown in the Southeastern States, Western Washington vegetables, Florida strawberries, Gravenstein apples grown in California, watermelons grown in the southeastern states, California prunes, Colorado peaches, and California canning asparagus.²

Prior to the enactment of the agricultural adjustment act programs similar in purpose and in general design to those developed under marketing agreements had at various times been undertaken in connection with five of the crops listed above; namely, California Tokay grapes, raisins, dates, cling peaches and prunes. One of the outstanding difficulties encountered in the earlier programs was the existence of a minority group who refused to participate in the marketing plan and carry its proportionate share of the burden of supply control although it received material benefits from the enhanced prices resulting therefrom. Usually the programs were started with growers controlling 80 per cent or more of the total crop participating. The increase in returns to these growers, while not quite as large as they would

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 28, 1934.

² License only.

have been if all the growers had joined in the plan, was nevertheless, substantial. In many cases, however, the increase in the returns to the nonparticipating growers, was even larger. Thus the man on the outside often gained a relatively greater advantage from the program than the man on the inside. Under this situation withdrawals by one means or another soon began, and as the monetary advantages of being among the small percentage on the outside became more widely recognized the rate of withdrawals increased. Instead of having 85 per cent of the crop under the program, only 80 per cent remained, then only 75 per cent, and finally the entire program was abandoned. Growers who stayed out of the marketing plan or who withdrew shortly thereafter in order to be among the 15 or 20 per cent who shared in the benefits without bearing any part of the burden of supply control frequently found that instead of being among the 15 per cent they were among the 100 per cent; that in escaping the burden of supply control they had assumed the much greater burden of uncontrolled supplies.

In the marketing agreements under the agricultural adjustment act, the difficulty connected with the refusal of the minority to cooperate is overcome by the use of an accompanying license. Usually from 75 to 95 per cent of the handlers sign marketing agreements and agree to be bound by their terms. A small minority, however, varying from 5 to 25 per cent refuse to cooperate voluntarily in the program agreed upon by the large majority. A license embodying the provisions of the marketing agreement, therefore, is issued by the Secretary of Agriculture to all handlers which prevents a minority from rendering the program ineffective.

Both the economic provisions and the mechanics of operation vary greatly between agreements. In each case an attempt has been made to fit the marketing agreement to the characteristics of the commodity, the methods of marketing and the thinking of the people. Hard and fast rules have been avoided. In general, returns to growers are influenced in one or more of three ways: (1) regulation of the quantity marketed, (2) regulation of the quality marketed, and (3) establishment of minimum prices.

Several of the marketing agreements provide for the determination of the total supply to be marketed for the entire season prior to harvesting and for limitation of the volume marketed during the season to the predetermined total. In the case of cling peaches, canning asparagus, Gravenstein apples and early potatoes, provisions are made for a fixed volume, while in the case of

raisins, prunes, walnuts and ripe olives, provisions are made for a fixed percentage of the crop. The marketing agreement for potatoes provides that the total volume initially determined may be either increased or decreased, those relating to Gravenstein apples, raisins, prunes, walnuts and ripe olives provide for an increase in volume but not for a decrease, while those relating to cling peaches and canning asparagus permit no change after the volume is once fixed.

Limitation of the total volume marketed during the entire season is based on the expectation that the total return to growers will be larger for the limited volume than would be the case if all of the available supply were marketed. Under conditions of inelastic consumer demand or of high marketing charges limitation of the total supply marketed during years of large crops relative to consumers' incomes is an effective means of increasing growers' returns.

In the case of cling peaches the costs necessarily incurred in putting the raw fruit into cans and delivering them to consumers are large and tend to be fixed at least for short periods. A marked decline in the price of canned peaches to consumers may result in eliminating entirely any return to the producer of the raw fruit. In 1934 the total crop of No. 1 cling peaches in California amounted to 275,000 tons. Under the marketing agreement the quantity permitted to be canned was fixed at 201,000 tons. Growers received \$30 a ton for peaches delivered to canners, or a total return of over \$6,000,000. It is estimated that without any limitation of the canned pack the total returns to growers would have been only one-half the amount actually received.

In most of the agreements on fresh fruits and vegetables provision is made for limiting the quantity that may be shipped during a specified short period of time such as a day or a week. With the exception of Gravenstein apples and potatoes no provision is made for limiting the quantity of fresh fruits and vegetables shipped during the season to a predetermined amount. Agreements on California Tokay grapes, California fresh deciduous tree fruits (except apples), California fresh asparagus, Florida celery, western Washington vegetables, and Colorado peaches provide for limitation of shipments from day to day or from week to week, but do not provide for any specific limitation of shipments for the entire season.

Alternate periods of short-time market gluts and shortages, arising from unregulated shipments from the areas of production have been characteristic in the marketing of many fresh fruits

and vegetables. It not infrequently happens that as a result of excessive supplies in consuming markets, prices fall sufficiently so that the grower not only receives no return for his product but is out additional expense for packing and transportation charges. It requires an expenditure of approximately \$1.05 to transfer a lug of Tokay grapes from the vines in California to the wholesaler in New York. If the supplies of Tokay grapes shipped to eastern markets is such as to result in wholesale prices less than \$1.05 a lug—and such a situation was not uncommon in 1932—growers receive only “red ink” returns. An increase in wholesale prices in eastern markets from \$1.05 to \$1.30 a lug, however, means the difference between no return and 25 cents a lug to the grower.

Careful regulation of shipments in accordance with the demand in consuming markets does not necessarily result in a reduction in the total supply marketed. The evidence to date indicated that a larger supply of fruits and vegetables can be moved into consumption on a stabilized market than on a demoralized market. The presence of excessive supplies in wholesale markets generally result in drastic price declines. Once started, price declines tend to become cumulative. Each drop in price discourages sales for the time being and necessitates further price concessions in order to move the product. While a reduction in prices to consumers generally results in a prompt increase in consumption, a reduction in prices to the trade may, if a further decline is in prospect, result in a decrease rather than an increase in sales. Price declines in wholesale markets occasioned by competition between shippers are seldom passed on to consumers immediately and therefore, seldom result in a prompt increase in consumption. In fact, as long as the market is weak, consumption may even be retarded because of the failure of the trade to promote and display the commodity adequately. With the prospect of returns for handling a commodity uncertain, jobbers and retailers turn their attention to other products. Instead of being active merchandizers of the particular commodity, they become merely passive order takers.

The method of regulating quantity by means of a “shipping holiday” is found in the southeastern watermelon agreement. This agreement provides that shipment of watermelons from the southeastern states may be entirely prohibited for a period not to exceed forty-eight consecutive hours and that such periods shall not be less than five days apart.

In the Florida strawberry agreement the only means of limit-

ing shipments is by quality regulation. This agreement provides that "Whenever it is the opinion of the Control Committee that by reason of prevailing market conditions it is advisable to limit the shipments of strawberries, it may issue an order or orders (a) prohibiting shippers from shipping from Florida, strawberries of a United States grade or grades other than the grade or grades specified in such order and/or (b) prohibiting shippers from shipping from Florida, strawberries of a size smaller than the size specified in such order."

Many of the agreements contain provisions relating to regulation of the quality of the commodity marketed. These quality regulations are of two general types: (1) those which provide for grading in accordance with established standards, and (2) those which provide for prohibition of specified grades and sizes. Regulations of the latter type have the effect of limiting the total volume and of raising the average quality.

The Southern watermelon and Florida strawberry agreements provide that upon order of the Control Committee all shipments shall be inspected and the product shall conform to the established United States grades. The cling peach agreement provides that only No. 1 peaches may be canned, while the prune agreement prohibits the sale by packers of off-grade prunes in regular commercial channels.

Regulation of volume by means of grade and size restrictions is frequently the most feasible and effective form of quantity limitation. Whenever quantity limitation is necessary it is generally preferable from the standpoint of the growers as a whole to apply such limitations to the least valuable portion of the available supply. In the application of grade and/or size regulations, however, account must be taken of differences in the market demand for specific grades and/or sizes, and of variations between individual growers respecting the proportion of the several grades and/or sizes which each has produced. An attempt is made to develop provisions designed in such a way as to prevent undue hardship on individual growers whose crops run heavily to the inferior grades and undesirable sizes.

The power to fix prices is the goal which many groups desire when initial consideration is being given to a marketing agreement. Growers are prone to insist that prices to them be fixed at a level that will assure them cost of production plus a profit; while handlers frequently request fixed resale prices as a means of securing a predetermined operating margin and a guarantee

that their competitors will not be able to sell at a lower price than they.

The fixing of prices in marketing agreements creates many difficult economic and operating problems. At what level are prices to be fixed? What will be the effect of fixed prices upon purchases by the trade? Are differences in prices to be permitted for variations in location with respect to the principal markets, for variations in quality, for variations in types of services performed, and if so, how are they to be equitably determined? If a handler's margin is to be fixed, should it be wide enough to include the cost of all handlers, the average cost, or only the cost of the most efficient? Is it economically desirable to freeze margins? These questions with all their implications as well as many more, confront us when it is desired to include prices in an agreement.

Because of these difficulties, no satisfactory solution of which has yet been found, minimum price provisions are included in only those marketing agreements where volume regulation is either impracticable or cannot by itself effectively maintain prices to growers. Minimum resale prices are generally limited to commodities, a considerable proportion of which are marketed by the producers themselves, either through cooperative marketing associations or individually.

Minimum price provisions are included in only five of the marketing agreements relating to fruits and vegetables which are now in effect. In the California raisin agreement the minimum price provisions relate to prices paid growers, while in the California dates, Pacific Coast walnuts, and Northwest deciduous tree fruit agreements they relate to handlers' selling prices. In the agreement for California ripe olives for canning, minimum prices apply to both those paid growers and canners' selling prices. In each case the establishment of minimum prices has apparently contributed to the maintenance of a stabilized market. This has been particularly noticeable in connection with walnuts, canned ripe olives, and dates.

The marketing agreement for shippers and producers of fresh peaches grown in Colorado includes a provision for the posting of price schedules by shippers, and prohibits a shipper from quoting, offering for sale, or selling peaches below his posted prices. The aim of this provision is to reduce the incentive for price cutting at the expense of the grower which arises out of the desire of one shipper to secure the business that ordinarily goes to another.

It is seldom feasible to include minimum prices in the absence

of control of the supply marketed. In the event that the total available supply of a commodity is larger than the quantity that will be taken at the established minimum price—and this is frequently the case—the failure to limit the supply to that quantity results in difficulty in maintaining the minimum price and in inequality between producers with respect to the available market. Only one of the marketing agreements containing minimum prices—California dates—does not also contain provisions for regulation of the volume marketed, and in this agreement provisions for supply control are likely to be needed shortly in order to take care of the increasing production in prospect.

The development and operations of marketing agreements are facilitated where the production of the commodity is confined to a geographically compact area and the market outlets and methods of marketing are well defined and lend themselves to control. The presence of strong cooperative marketing associations in the industry is also of importance. It would be extremely difficult to operate a marketing agreement for a commodity such as tomatoes for canning which is produced in widely separated areas by thousands of growers, and for which the methods of handling are not uniform. Sectional jealousies, differences in viewpoint, differences in problems, all contribute to the hazard of successful operation. The problem of regulating supplies which are marketed partly by truck, particularly in areas close to large consuming markets and which may be easily reached over numerous roads, is also a difficult one.

Much of the contents of the marketing agreements deal with the mechanics of operation. It is one thing to determine what to do; it is quite another to determine how to do it. Many ideas have been discarded because no workable program could be found for putting them into effect. A number of prospective agreements which were started with high hopes, such as corn for canning, have fallen by the wayside. Other agreements, such as California deciduous tree fruits, were put into effect only to find that substantial changes were required. One of the very complex operating problems has to do with the limitation of shipments and the making of allotments. If market supplies are to be limited, that limited supply must usually be allotted among the various handlers and/or among the many growers upon some equitable basis. Several of the marketing agreements, such as fresh asparagus, and Tokay grapes provide for divisions of the total supply permitted to be shipped among the various handlers and growers in proportion to the supply controlled by each. One of the chief problems connected with this method is that of obtaining accurate esti-

mates of each grower's production in advance of harvesting. The difficulty connected with estimates of individual grower's production is eliminated in the marketing agreements relating to raisins, prunes, and walnuts through provisions which require each handler to turn over to the account of the Control Committee a specified percentage of all receipts from growers. This method, however, involves considerable expense in connection with the physical handling of the commodity and the keeping of necessary accounts, and meets resistance from some growers.

Marketing agreements contain elements which may result in a reduction in the spread between prices received by producers and prices paid by consumers. Such a reduction might arise out of the decrease in the risks of doing business occasioned by price declines and deterioration in the quality of the product. The stabilization of market prices through the regulation of the volume marketed or through the maintenance of minimum prices tends to prevent rapid and frequent price declines, and losses to buyers resulting from them. Likewise grading in accordance with established standards and prohibition of produce of inferior keeping quality or for which consumer demand is slight tend to minimize the possibility of loss. Other than in connection with these two I am not inclined to place much reliance in the possibility of marketing agreements of the type thus far developed in themselves resulting in any noticeable decrease in price spreads between producer and consumer. Few handlers are altruistic enough to enter voluntarily into an agreement designed to reduce their returns unless their costs are also correspondingly reduced.

Marketing agreements to date have been used primarily in emergency situations, that is, when prices to growers have been at distressingly low levels. The aim has been to bring the prices of these very low-priced products up to the level of prices prevailing for other commodities. A question of considerable importance is whether marketing agreements are to continue to be used in only emergency situations, or is a long-time program to be developed. If they are to be used only for those crops in extreme distress, and only in years when prices for these crops are at distressingly low levels, the field of marketing agreements would be somewhat restricted. On the other hand, if the aim is to develop marketing agreements to be operated continuously on most special commodities, it is evident that it will be necessary to develop methods for maintaining a checkrein on production, or to develop methods for increased consumption in line with increased production.

MARKETING AGREEMENTS FOR DAIRY PRODUCTS¹

A. H. LAUTERBACH

AGRICULTURAL ADJUSTMENT ADMINISTRATION

Perhaps a bit of history, briefly sketched, will throw some added light on the development of dairy marketing agreements to their present, still experimental, stage. During the period May to December, 1933, marketing agreements for fluid milk were put into effect in thirteen sales areas, and agreements with manufacturers of evaporated milk and dry skim milk were also made effective.

As you are aware, the principal provisions in the first agreements included established minimum prices payable by distributors to producers, on the classified plan according to the use made of the milk and cream; a schedule of complete itemized resale prices, both for retail and wholesale sales by dealers and including prices at stores; and a provision setting forth the manner in which the market was to be pro-rated among producers.

Among the first violations that caused most difficulty with enforcement of the agreements, resale prices stood out above all the rest. To approach adequately any fixing of resale prices the Government required the right and ability to fix rates of return on capital investment of distributors and service requirements to customers. Lacking the essential means or time to handle this properly, and being thrown at once into controversy between rival dealers and between stores and delivery systems, the task of enforcing resale prices became too burdensome and impractical to retain. Hence a modified policy respecting fluid milk agreements and licenses was announced late in January, 1934. All agreements then existing were terminated by the Secretary as of February 1, 1934, subsequent to which up to December 1, 1934, a total of 48 licenses in about 18 states were signed and made effective under the new policy. This new policy departed from the resale price structure except for an occasional minimum schedule used in a limited way on some markets to keep the level of competition from reaching dangerous points. In the majority of licenses no resale schedules whatever have been used.

The present program is intended to maintain and raise the income of milk producers as far as possible within the scope and

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 28, 1934.

limits of an open, competitive market. Competitive forces are supposed to be intelligently directed so that emphasis will be placed on efficient competition, with adequate return to farmers. This is intended to correct conditions wherein undirected, rough-and-tumble competition results in unstabilized, chaotic markets and dissatisfied producers.

Competitive advantages which depend on the ability of dealers to shatter their rivals by obtaining cheap milk at the expense of producers is one of the main things which the license seeks to prevent. The right of producers' groups to organize and obtain check tests and check weights on milk sold by their members, and the additional safeguard of mutual access to market information are important factors sought by the licenses. Coercion, force and intimidation, or the use of high-handed arbitrary methods in administration have been carefully avoided. More local help in administering the licenses has been one of our principal objectives. Centralized authority at Washington, beyond a fair amount of supervision for arbitration's sake, has also been avoided where possible.

Through the classified price plan used in all licenses, with or without the base-surplus plan of paying producers, distributors are obliged to pay the same price for milk similarly used as all other distributors. They are not allowed to bring in milk from any outside sources at prices lower than distributors in the market are required to pay for milk of the same class. We believe that the essence of the plan as designed in the present licenses really protects honest and efficient dealers so they are able to pay the best possible price to farmers and render adequate service to consumers. We have at all times conducted these new licenses without marketing agreements just as conscientiously and carefully as we would have done had there still been marketing agreements. That is, we have conducted hearings on proposed licenses with ample opportunity for dealers to be heard, and no great changes have ever been made by amendments to existing licenses without the counsel of the distributors, as well as the producers.

In markets where no base-surplus plan is in operation, a so-called straight pool plan is used in paying producers for milk. That is, farmers get a weighted average price based on the total value of the milk sold by dealers in all classes. In markets operating under basic-surplus or other method of pro-rating the market among producers, farmers receive an allotment representing their proportionate share of the fluid milk and/or cream market, with bases or shares established on records of past deliveries.

In some markets distributors are required to pay producers the blended price for delivered base milk as calculated by the Market Administrator from reports made to him by dealers on their volume of purchases and sales. They are paid the excess price for milk delivered in excess of the producers' base.

In some other markets producers get approximately the Class 1 price for delivered base milk and the lower excess price for all milk they deliver in excess of their delivered base. In this way producers in the same situation with regard to distance from market and who produce milk of the same butterfat test receive the same price for that portion of their milk representing their share of the fluid milk and cream market, and the lower or excess price for that portion of their milk which must be converted into manufacturing uses.

Several additional provisions, designed to aid in the efficient operation of the pool and in those markets with base-surplus plan, in the efficient operation of the plan, are carried in the licenses.

Needless to say, the modification of the original policy has not entirely eliminated problems and complexities. We did not anticipate that it would, as the entire effort is somewhat experimental and depends to a great degree on local cooperation. We can say, however, that in most cases we have had cooperation.

The matter of jurisdiction and enforcement of federal milk licenses has become increasingly important during 1934. The adjustment act provides that the Secretary of Agriculture may license distributors to engage in business in the current of interstate commerce. The problem that comes to the fore at once is that of determining the degree to which milk for any particular market must originate in out-of-state sources before the Federal Government has the power to regulate the commerce of all milk, both inter-state and intra-state, in that particular market.

In some markets a large part of the milk consumed originates in other states, such as in the Boston market, which seems to make such markets definitely interstate in character. In other markets, only a small part of the total supply of milk for direct consumption originates in other states, so that the interstate character of such markets as these is less marked. In still a third set of markets, none of the milk and cream used in fluid form originates outside of the state. In such instances it becomes a question of determining whether, by regulation of the commerce in milk and cream in this type of market, by effectively controlling the excess, for example, we can remove burdens and obstructions from the commerce in products made from such excess milk

or cream. It is particularly in the last case where uncertainty arises as to whether the State or Federal Government should control the commerce in milk.

The higher courts of the country have not yet rendered any decision that defines the scope and limits of the regulatory power of the Federal Government with respect to the commerce in milk. It will be a momentous decision when it comes, and one that will affect the whole body of producers in many ways.

Fair adjustment of prices to fluid milk producers still remains a vexing problem. It is broadly recognized that without restriction of supply it is almost impossible to maintain producers' prices above those based on a normal relation between fluid milk and manufactured milk values without causing an increase in the delivery of milk to the fluid market, either from within or without the usual limits of the milk shed.

Hence prices established in the licenses are subject to revision as indicated by changing supply and demand conditions in the market. During the summer, drought conditions severely affected the supply of milk in many markets. Prices were raised in many of the markets so affected, to enable farmers to buy feed. After drought conditions became less acute, the supplies of milk entering those markets increased in response to the higher license prices. In some cases it was necessary to reduce the prices in the license so as to keep excessive supplies from breaking down the whole market structure. In almost all cases, prices are adjusted carefully with the history of the market in mind, and likewise with some intelligent consideration of the buying power of consumers.

The producer-distributor problem has been another hard one to solve. If producers who do not distribute their own milk wish to develop a program to restrict supplies so as to enhance the price they get, it is necessary, probably, to bring the producer-distributor under the same program in order to limit supplies effectively. However, under a program that aims to increase prices and farm incomes as much as possible within the limits of a competitive market structure, the immediate problem is that of determining the relationship of the producer-distributors to wholesale producers, and how much of the surplus market burden of milk the producer-distributor shall carry. At present and through degrees of trial and error, the licenses exempt the producer-distributor from payments to the adjustment fund in the pool on milk of his own production, but he is obliged to render accounts to the market administrator for his purchases from

other producers or for sales in bulk to other distributors, using the classified system.

Although it has been necessary in establishing the licenses to appoint market administrators and set forth their duties, owing to the emergency, it is desirable that the administration of the licenses be decentralized as much as possible and the responsibility of administering the license placed more generally in the hands of some competent local body.

The relations with cooperative producers' associations need to be defined more carefully. The Administration is not always in a position to render to non-member producers all the services which cooperative associations are already performing for their members. In particular such associations often guarantee members a steady market for their milk under specific terms and conditions, and they often set aside reserve funds to protect producers from delayed payments or outright failure on the part of distributors. On the other hand, the checking of tests and weights of milk from the distributors' records and the distribution of adequate market information are services which the Administration through licenses are well able to perform for non-members of cooperatives.

Licenses are obviously tools or mechanisms to be used in the enhancement of farm income. Recognizing the evident fact that dairy farm income cannot well be much higher than the income of competing branches of farming without severe competition, it is still noteworthy that two methods of approach through licenses are open.

The first way, which appears to be the way we have thus far followed, is to issue licenses intended to eliminate as far as possible faults in the market structure, so as to direct competitive forces toward greater efficiency and stability and to secure relatively higher returns for producers.

The second way that is open is to engage in a restricted supply program. In some other commodities this action has been followed. The complexities of trying to use this latter plan fall into at least three parts, namely: 1. establishment of prices at such high levels that evasion of the restrictive measures would be encouraged. 2. Danger of leaving the market in an unstable condition whenever government support would be withdrawn. 3. The difficulty of setting up an acceptable control plan, as we witnessed last April when national production control in milk was discussed.

In closing I wish to pay tribute to the assistance we have re-

ceived from graduate economists in working out the many perplexing problems that have arisen. We who have been engaged in every-day practical dairying have depended on students of economics to take us over many rough spots. In the future we will continue to look to your profession for guidance on many matters.

DISCUSSION BY W. A. WENTWORTH

DAIRY INDUSTRY COMMITTEE

The paper which has been presented by Mr. Lauterbach states the aims and accomplishments of the Dairy Section of the AAA in carrying out the purposes of the act with regard to dairy products but principally fluid milk. Distributors in all food lines have recognized that the act has been and should be administered for the purpose of recouping the purchasing power of farmers. For the most part they have been in full sympathy with the objects sought but quite naturally have had some different viewpoints and have felt that there are essential corollaries.

These corollaries are, in principle, that the distributor as the marketer of the product is equally interested in the free flow of the product into consumptive channels at the best possible price to the producer; that there exists an economic relationship between the channels through which milk passes when it leaves the farm; that to attempt to maintain prices for fluid milk higher than customary economic balance requires adequate supervision of volume of production and number of producers favored, and prompt enforcement against those who do not voluntarily comply; and that the higher the price of milk from its customary balance the more supervision throughout all processes of sale are required.

As Mr. Lauterbach has stated the first approach to providing the benefits of the act to the fluid milk producers was through marketing agreements. These marketing agreements recognized all the apparent corollaries to maintenance of a milk price to producers well above a normal balance with the farm price of other products and of milk manufactured into other dairy products. They included restricted farm production; they included provisions for promoting economy in distribution; they included provisions for broadening sales through increased consumption; and they included control over resale prices, both wholesale and retail, to facilitate the carrying out of the purposes of the agreement.

The statement has been made, "to approach adequately any fixing of resale prices the Government required the right and ability to fix rates of return on capital investment and service requirements to customers." Rates of return on capital investment and service requirements were not sought in marketing agreements, but rather reasonable resale prices which would permit payment of high prices to producers and protection thereof.

It is true that this led "into controversy between rival dealers and between stores and delivery systems." Equally it led into controversies between producers who were in and those who were not in on the benefits of the marketing agreement.

The third corollary mentioned, i.e., that to attempt to maintain prices for fluid milk higher than customary economic balance requires adequate

supervision and prompt enforcement against those who do not voluntarily comply, was not accomplished in the matter of control of resale prices. There are different reasons given for this, and perhaps it was "too burdensome and impractical." Nevertheless all states which have adopted milk control legislation have accepted, apparently, the necessity of attempting to control resale prices. Adequate enforcement of these provisions in the states is still very questionable. Consequently many distributors have abandoned the thought that resale prices can or should be controlled.

Turning now to the policy of applying a license to a market as is being done at the present time. It sounds plausible to say that if all distributors have to pay the same price for their milk, that open competition among distributors will promote efficiency in distribution and equitable competitive conditions. But are distributors forced to pay the same price or experience the same cost of milk? Mr. Lauterbach has recognized this question when he says, "The matter of jurisdiction and enforcement of federal milk licenses has become increasingly important during 1934. The adjustment act provides that the Secretary of Agriculture may license distributors to engage in business in the current interstate commerce. The problem that comes to the fore at once is that of determining the degree to which milk for any particular market must originate in out-of-state sources before the Federal Government has the power to regulate the commerce of that milk in that particular market."

Some of the markets now operating under an AAA license are experiencing almost complete compliance by all distributors. There is then in other markets a varying degree of compliance ranging all the way to what might be said to be utter disregard of the provisions of the license. The very fact that the authority of the Secretary of Agriculture has been or can be questioned gives certain distributors who are so disposed the opportunity to ignore or violate the license. Procedure of enforcement and court action is so slow that much milk in many markets is being handled at lower costs than is provided in the license.

Speaking before the American Farm Bureau Federation on December 11, 1934, H. R. Tolley, Assistant Administrator and Director of Program Planning of the Agricultural Adjustment Administration, said

It is becoming more and more apparent that marketing agreements cannot survive and licenses cannot be enforced unless a large proportion of those affected by them are in sympathy with their provisions, and that in the long run it is useless to approve marketing agreements to which growers or distributors will not adhere, or to issue licenses where the enforcement problem is too great.

This matter of compliance is really the critical factor which will determine the ultimate success or failure of agreements and licenses. Prompt action must be taken against distributors or processors who violate the provisions of an agreement or license or else the others who are complying are likely to join the ranks of the violators. This is partly a problem in administrative machinery and partly a legal problem involving action by the courts. The Administration has attempted to expedite enforcement processes by making its own organization as efficient as possible. But there remain legal problems to some extent outside of its control.

With producers and distributors on the one hand clamoring for enforcement, and lawyers representing non-complying distributors engaged in tactics of obstruction and delay, the Administration has, so to speak, been between two fires.

In the same speech Mr. Tolley said,

It is recognized by the Administration and generally accepted by producers and distributors who are affected by agreements and licenses that prices to producers can not be supported over any great length of time without control of supplies, and for no important commodity is there provision for price control without taking supply factors into consideration. The milk licenses have specified prices to be paid producers. These are protected to some extent by the fact that it is not feasible, from the standpoint of sanitation and transportation costs, to bring milk from outside the regular producing area, and in some cases by the fact that new producers must go through a probationary period before receiving the full privileges of the market. But experience has shown that the prices named must be kept in line with the realities of supply and demand, if they are to be generally observed. When they are set too high, a kind of economic vacuum is created which inevitably draws in milk at prices below those named.

Mr. Lauterbach in his paper, which is under discussion, said

Fair adjustment of prices to fluid milk producers still remains a vexing problem. It is broadly recognized that without restriction of supply it is almost impossible to maintain producers' prices above those based on a normal relation between fluid milk and manufactured milk values without causing an increase in the delivery of milk to the fluid market, either from within the usual limits of the milk shed or beyond. * * * * * In almost all cases prices are adjusted carefully with the history of the market in mind and likewise with some intelligent consideration of the buying power of consumers. Fixing prices in the rigid sense, or fixing prices based on cost of production cannot be undertaken at this time with success.

What is "a normal relation between fluid milk and manufactured milk values"? The answer to that question has not been given. In three places Mr. Lauterbach refers to the experimental character of this type of market or price control.

May I cite illustrations of price relationships which exist in two markets? They may not be representative, but they are certainly illustrative. I have used the farm price of milk entering the New York market to represent the east and that entering the Des Moines market to represent the middle west. It is recognized that the New York milk market is not operating under an AAA license. Boston might have been used. It would have shown somewhat higher prices, but its production is perhaps not as competitive with milk which carries manufactured milk values.

The premium paid for Class I milk over the manufacturing (butter basis) value of milk is higher in each of these markets today than it was during 1928 and '29 when all prices were at their highest point of recent years. Let me illustrate this in the following manner.

The average price for Class I milk during 1928 and 1929 in the New York 200-210 mile zone, 3½% basis.....		\$3.29
The average 92 score butter price for 1928 and 1929 times 3½ plus 20 percent and 20 cents per cwt.		2.08
Premium		\$1.21

The average price for June 1933 to November 1934, 200-210 mile zone for N. Y. milk, 3½% basis*	\$2.28
The average 92 score butter price for June 1933 to November 1934, times 3½, plus 20 percent*	1.00
Premium	\$1.28

*Period of N. Y. State Milk Control Board operation.

The butter value for the latter period is 52 per cent of the high priced period, while the premium over the butter value for the latter period is 5 per cent more than that during the high priced period.

The average price for Class I milk during 1928 and 1929, f.o.b. the city of Des Moines, 3½% basis.....	\$2.70
The average 92 score butter price for 1928 and 1929, times 3½: plus 20 percent and 20 cents per cwt.	2.08
Premium	\$0.62
The average price for Nov. 1933 to Nov. 1934* f.o.b. the city of Des Moines, 3½% basis.....	\$1.83
The average 92 score butter price for Nov. 1933 to Nov. 1934, times 3½ plus 20 percent*	1.00
Premium	\$0.83

*Period of AAA marketing agreement and license.

The butter value for the latter period is 53 per cent of the high priced period while the premium over the butter value for the latter period is 34 per cent more than that during the high priced period.

No one begrudges the farmer this price, all know that he should have as much as possible for his milk, but it creates a difference or premium which can only be maintained by prompt and rigid enforcement. Based upon experience, it is clearly the situation which Mr. Tolley stated in the words previously quoted, "But experience has shown that the prices named must be kept in line with the realities of supply and demand, if they are to be generally observed. When they are set too high, a kind of economic vacuum is created which inevitably draws in milk at prices below those named."

While licenses may be returning a somewhat higher price to fluid milk producers than otherwise might be paid, they certainly are inviting more competition into the fluid milk markets, much of which is on a non-compliance basis. In many markets this places the complying distributor in a precarious position which he will continue to occupy until there may be complete enforcement of the terms of the license or a price established which is more nearly in proper balance with the price of manufactured milk and milk products.

Not alone have these prices for Class I milk, rather perhaps I should say the premium for fluid milk over manufactured milk values, had a tendency to invite more producers of milk into the markets, but it has likewise stimulated more production on farms already in the market. Much criticism has been directed against this condition by other branches of the industry, in view of the fact that such surplus in the fluid milk markets finds its way into the butter markets either directly or indirectly.

An editorial in the December 1934 issue of *The Creamery Journal* is in point:

It has been clearly demonstrated that the fixing of fluid milk prices without due regard to butter prices does not work to the advantage of the dairy industry as a whole. It was a mistake in the first place for those in charge of milk price fixing to not recognize this interdependency. If milk prices in one section are fixed at a point where they are substantially above prevailing butter prices, the advantage gained will be at the expense of other sections. Furthermore it will not tend to correct the situation that it is intended to benefit.

Milk price fixing should not result in aggravating dumping of surplus into butter channels. On the other hand it should seek to prevent it. Butter production has long been the dumping ground for surplus milk and will continue to be, but those sections primarily engaged in producing cream for buttermaking purposes are justified in objecting to regulation of the fluid milk business when it is conducted so that it works to the disadvantage of the butter producing areas.

Every part of the dairy industry is dependent more or less on every other part and it is impossible by artificial regulation to give undue advantage to one section without injury to someone. When this fact is recognized regulation will become nearer to being an advantage than a liability.

Marketing agreements have been considered by the respective branches of the dairy industry for butter, ice cream (frozen desserts), cheese, evaporated and dry milk.

The agreement for the evaporated milk industry carries provisions for determining the price to the producers. A formula is used, based upon the price of butter and cheese. In the fifteen months of operation the estimated return to the farmers has averaged about \$800,000 per month over the previous fifteen months. This reflects the increase in the butter and cheese markets as well as the application of the formula above that. The best estimate which can be made by the industry is that approximately one-half of the increased return to the producers is due to the raise in butter and cheese values and the other half due to the agreement.

The approval and application of the agreement came at a time when competitive conditions in the industry were most acute. The finished product was selling at prices which were ruinous and which no doubt would have caused lower farm prices because 45 per cent of the wholesale price of case goods is the cost of milk.

The minimum price for finished product established in the agreement stabilized the industry and permitted increased returns to the producers. Now the industry is faced with the insistence of the AAA that a new marketing agreement be put into effect which continues the minimum price to producers but eliminates the minimum price on finished goods. It carries in place thereof a provision for open price filing. The new agreement hence is half price fixing and half not. Abraham Lincoln once said that this nation can not endure half free and half slave.

The marketing agreement for the dry skim milk industry contains no provision for minimum prices to producers but that industry estimates that the operation of the agreement in the first twelve months meant an increased return to producers of ten cents per hundred weight on their skim milk. Thirty million hundred weight of fresh skim milk is used annually in the production of dry skim milk so that the total increased return to pro-

ducers has been three million dollars in the year. This agreement contains no minimum prices on finished product but provides for open price operations.

Thus far the butter, ice cream, and cheese industries have not developed either a marketing agreement or code which has been satisfactory to the respective industry, which means of course there can not be approval of the Administration.

All branches of the dairy industry have developed to handle the production of the dairy cattle of this country as it comes each and every day of the year. Milk flows from its sources like the flood waters of the Mississippi. That which can not flow in its normal channel spills over, as it were, into other milk products. Fixed or higher farm prices without control of supply, and the dairy farmers chose not to accept a program of controlled or reduced production, probably will intensify the pressure of supply in this industry.

THE REGULATION OF THE MARKETING OF FRUITS AND OTHER NATURAL PRODUCTS IN CANADA¹

W. C. HOPPER

DOMINION MARKETING BOARD

With the first meeting of the Dominion Marketing Board, held on August 13th of this year, Canada's Natural Products Marketing Act began to function. Under the provisions of this act the marketing of agricultural products may be regulated in a manner somewhat similar to the manner in which such products may be regulated under that part of the agricultural adjustment act of the United States which refers to marketing agreements. The purpose of the Canadian act is the same as that of the agricultural adjustment act, namely to aid primary producers. The Canadian act provides a means whereby primary producers may organize to regulate the marketing of the products of their own production which enter interprovincial or export trade.

What is a Natural Product?

Under the Canadian marketing act, the products which may be regulated include all of the important agricultural commodities as well as natural products of the forest, sea, river or lake. The Governor-in-Council may also designate as a natural product articles of food and drink which are wholly or partially manufactured or derived from natural products.

Not Emergency Legislation

The Canadian act is not considered emergency legislation to relieve temporary conditions but rather it was designed to give producers a more permanent place in the marketing of their own products. However, the difficulties under which primary producers in Canada have been laboring during recent years constituted an important factor leading to the adoption of this act by Parliament.

Although the natural products marketing act is fundamentally a producers' act, those engaged in marketing or in production and marketing may petition the Minister of Agriculture to approve a scheme for the regulation of the marketing of a natural product.

¹ This paper was read at the Twenty-fifth Annual Meeting of the American Farm Economic Association, Chicago, December 28, 1934.

Schemes Administered by Local Boards

The instruments by which marketing schemes, created under the act, are administered are local boards which are elected or appointed by those concerned, and these boards become corporate bodies from the date that notice of the approval of the scheme by the Governor-General in Council is published in the Canada Gazette. In the hands of the local boards is placed the enforcement of the powers granted to them by the Dominion Marketing Board.

Basically a Producers' Act

The initiative in the preparation of schemes has, so far, been taken by producers, more independently of other interests such as shippers and dealers, than has been the case with the marketing agreements with which we are familiar in the United States. In many of the schemes which have been approved or which are still under consideration in Canada, the members of the local boards are, predominately, producers. In a number of them there are no representatives from the trade but in some cases advisory bodies of shippers or dealers are provided to assist local boards of producers in the administration of the schemes. In the schemes which have been approved, provision has been made that there shall not be any discrimination against legitimate members of the trade engaged in marketing the regulated product and it has been the aim of the proponents of the schemes to disturb as little as possible the legitimate methods of marketing now being employed. The desirability of obtaining the cooperation of the trade in the operation of marketing schemes has been emphasized by the Dominion Marketing Board.

Under the act, the Dominion Marketing Board may give power to a local board to designate an exclusive marketing agency, which, in the case of some of the proposed schemes, has been interpreted by the proponents to mean a sales agency of producers. This means that producers, through their own agency, may have complete control over the primary selling of the product, and in some cases may carry the product quite a distance into the channels of trade; a number of schemes now under consideration contain this feature of a sales or marketing agency which may, under the act, be designated by the local board. If the sales agency can operate more efficiently than the existing agencies, a reduction in the spread between producer and consumer prices should be realized.

Of the five schemes which have been approved, two refer to the marketing of fruits but none to the marketing of vegetables. In these two schemes the local boards consist almost entirely of producers. One of these schemes refers to the regulation of the marketing of British Columbia tree fruits and one to the regulation of the export of tree fruits from Canada. A number of other schemes referring to the marketing of fruits and vegetables are under consideration and final action will likely be taken on them in the course of the next few months. In the case of the British Columbia Tree Fruit Scheme, an advisory council of shippers assists the local board in the administration of the scheme, but the local board, to which the powers of the scheme have been delegated, is made up entirely of producers.

The other three schemes in operation refer to Ontario flue-cured tobacco, British Columbia red cedar shingles and dry salt herring and dry salt salmon produced in British Columbia.

The control, in the case of the British Columbia red cedar shingle scheme and the dry salt fish scheme, is vested in representatives of shingle manufacturers and salt fish packers respectively. The local board administering the Ontario flue-cured tobacco marketing scheme consists of nine producers and five representatives of the tobacco trade.

Power of Local Boards

The Dominion Marketing Board may delegate to a local board power to regulate the time and place at which, and to designate the agency through which the regulated product shall be marketed. Authority may also be given to a local board to determine the manner of distribution, the quantity and quality, grade or class of the regulated product that shall be marketed by any person at any time, and to prohibit the marketing of any of the regulated product of any grade, quality or class; power may also be delegated to exempt from any determination or order any person or class of persons engaged in the production or marketing of the regulated product or any class, variety or grade. The act also provides that a local board may license those engaged in marketing, register producers and conduct a pool for the equalization of returns received from the sale of the regulated product and may compensate any person for loss sustained by withholding from the market or forwarding to a specified market any regulated product pursuant to an order of the board.

The Dominion Marketing Board cannot delegate powers to a

local board to fix prices, to engage in the actual marketing of the regulated product or to control or regulate production.

The act also gives power to the Dominion Board to cooperate with the Marketing Board of any Province for the regulation of the marketing of a natural product.

There is no provision in the natural products marketing act for establishment of any body similar to the Consumers' Council under the Agricultural Adjustment Administration. Of course, before the scheme is recommended to the Minister of Agriculture for his approval, it must be considered by the Dominion Marketing Board to be economically sound and if it were believed by the Board that the adoption of a scheme would result in an unreasonable burden on consumers it is very unlikely that the Board would recommend it for approval. Under Part II of the natural products marketing act it is provided that investigations may be made by the Minister of Agriculture of margins, spreads, trade practices and other matters in relation to the production and marketing, adaptation for sale or processing of a natural or regulated product. This provision might be considered as a safeguard to consumers. This provision for investigation of spreads may be the means whereby reductions in the costs of marketing may be achieved and result in the producers obtaining a larger share of the consumer's dollar.

Poll May Be Required before Scheme Comes into Effect

After a marketing scheme has been dealt with by the Dominion Marketing Board and recommended for approval the Minister may require that a poll of those concerned be taken. In the case of the British Columbia Tree Fruit Scheme and the Ontario Flue-Cured Tobacco Scheme, polls to obtain producers' sentiments with respect to the schemes were taken prior to final action on these schemes by the Dominion Marketing Board. In some of the proposed schemes regulation is to be applied to a product grown in a large territory. If any of these schemes are recommended for the approval of the Minister the taking of a poll of producers, if the Minister requires one, will involve a very considerable amount of work. The fixing of the percentage of voters which must favor any scheme before it becomes effective rests with the Minister of Agriculture. It is safe to say that there will have to be a majority in favor of the scheme before it will be put into effect.

The experience of producers in Canada has been similar to those in United States with respect to voluntary cooperative or-

ganizations, in that a selfish minority group who refuse to work with the majority for the good of all concerned often defeat the objects of the cooperative efforts. Under the natural products marketing act an opportunity is presented for the organization of producers or for those engaged in marketing or for those concerned with both operations to bring the minority into line with the majority and to ensure that the minority assist in carrying the costs of the unified efforts in marketing.

If any difficulty develops in the administration of a scheme by a local board or if any unwise regulations are issued by the local board, the Dominion Marketing Board may retract any or all of the powers delegated to the Board or take any other action which will bring the local board's activities into line with the best interests of those whose products are regulated under a marketing scheme.

The British Columbia tree fruit scheme, which has been in operation since August, has regulated the flow of apples to market and what might have been a disorderly marketing has been made orderly by the regulations of this local board. It is too early to calculate in monetary terms the increased returns to producers which have been received as a result of the British Columbia Tree Fruit Scheme but producers and shippers are apparently well satisfied and, no doubt, will vote for its continuance.

At a recent meeting in Nova Scotia, fruit growers and shippers unanimously endorsed the continuation of the fruit export scheme which concerns Nova Scotia, Ontario and British Columbia tree fruits, and asked that Nova Scotia apples entering the domestic trade be regulated as well as those entering the export trade.

Pooling Returns

Under the British Columbia tree fruit scheme the returns to shippers have been pooled by the local board. The local board periodically states the basic pool price at which apples may be sold. Suppose, for example, the basic pool price for No. 1 Mac-Intosh apples were set by the board for a certain period at one dollar and twenty-five cents (\$1.25) per bushel. A shipper may sell at any price he pleases but he must put into the pool \$1.25. If he sells for \$1.50, the amount he receives over the basic pool price is not pooled but if he sells below the basic pool price he must turn into the pool the full pool price.

The experience of the United States with respect to the conditions which facilitate the operation of marketing agreements will,

no doubt, be repeated in Canada. Where there are a relatively small number of producers and handlers and where the geographic area of control is relatively concentrated, and where strong co-operative associations now exist, the administration of a marketing scheme should be less difficult than where a scheme covers a wide area and where there are many producers and buyers. In most cases the initiative in the preparation of schemes, so far, has been largely confined to areas where voluntary co-operatives now exist and have been relatively successful. The difficulty of regulating the marketing of a commodity under a marketing scheme, which is handled largely by motor truck, is appreciated. It is expected that the regulation of the marketing of potatoes in Ontario under the proposed potato scheme, relating to potatoes entering the commercial channels of trade from four Eastern Provinces, will involve problems not yet encountered in the schemes in operation because a large portion of the potatoes is handled by motor trucks. There are two principal features to this proposed potato scheme. One is the elimination of consignment selling and the other is the prohibition of the sale of low and inferior grades of potatoes by potato dealers.

Only Workable Schemes Considered

It has been difficult in some instances to convince the proponents of marketing schemes that in a marketing scheme there must be a definite scheme or plan of operation and that it must be workable. The proponents of some schemes have wished to take on the wide powers of the act and when granted these powers would then attempt to work out the details of their plan of operation. It has been made clear to such groups that a scheme must not only conform to the act but it must also be practicable and enforceable.

In the operation of the Fruit Schemes, the cooperation of the Dominion Fruit Inspectors has assisted greatly in the success of the schemes.

While producers have taken a greater initiative in the preparation and submission of schemes than other groups, the interest which those engaged in marketing are taking in the act indicates that manufacturers and distributors of natural products appear to be just as anxious as producers to bring under control the members of their particular branch of the industry who refuse to abide by recognized business ethics in order to further their own selfish motives.

With the marketing act in operation for only four and one-half

(4½) months it is difficult to appraise results but the fact that no major violations have yet occurred in the operation of the five approved schemes might be considered as demonstrating that compulsory regulation of marketing is a principle which is being generally accepted in Canada. The number of schemes now under consideration and the large number of inquiries which are being received with respect to the preparation of additional schemes also indicate the desire of producers and those engaged in marketing for power to regulate by law the marketing of natural products.

NOTES

(Editorial Note: Dr. H. B. Price, Agricultural Experiment Station, Lexington, Kentucky, is the associate editor in charge of the Notes. Manuscripts for this section of the Journal should be addressed to him.)

LOCAL GOVERNMENT IN A RURAL AREA

In the late spring and early summer of 1933, the Kentucky Agricultural Experiment Station cooperated with the Bureau of Agricultural Economics in making an intensive study of local government in two typically rural counties, Livingston and Crittenden, of Western Kentucky. A chief purpose in making this study was to test the possibilities both of reducing the costs of rural local government through modernization and otherwise, and of increasing the efficiency of local government in a representative rural area.

Three underlying conditions were found to dominate the pattern of local government in these two counties. All three of these conditions are non-progressive in nature and tend to retard improvement of local government. Even more unfortunately, the three basic conditions can be changed only slowly. The first, which so commonly is true of small rural counties, is the very low tax base in each county. Sparse population and relatively large physical areas to be served in such counties, result in high unit costs of government. These high unit costs and low tax resources make it impossible for rural counties to provide acceptable governmental services unless either excessively high local tax rates are levied, or aid is forthcoming from outside sources. In these two counties, excessively high tax rates were not being levied, but services of a low order were being provided. Typical of the prevailing services were: one teacher schools in one-room frame buildings; practically no available school facilities for many of the Negro children; narrow, unimproved dirt roads, rather lanes or trails, which become streams of mud during rains; antiquated and poorly maintained courthouses and jails; and non-effective and totally inadequate public health and welfare services.

State constitutional and statutory control of county administration is the second condition which vitally affects the pattern of local government. This control begins with setting maximum and minimum limits of tax rates which counties may levy. The effect of this requirement may be illustrated by pointing out that county officials are chosen for the same offices, and the pattern of government is practically the same in both the poorest and wealthiest counties of the state. The maximum permissible tax rate of 50 cents per \$100 of assessed value yields approximately \$6,000 in one county and \$2,450,000 in another. With only \$6,000, the first county is expected to pay the salaries of the same number of elective officials as the second, to feed and maintain its prisoners, to care for paupers, and to pay for the cost of two or more county-wide elections each year. The cost of a third election has just been added through the adoption of a compulsory run-off primary election law in the selection of candidates for state offices. This limitation of the tax rate, plus numerous statutory requirements for definite expenditures, have forced many coun-

ties to become indebted for current operating expenses during recent years. Statutory requirements concerning certain expenditures are so extreme that county officials can exercise their judgment in spending only about one-third of the county general fund. In other words, two-thirds of what may be properly termed county spending is done as prescribed by state statutes. Objection is not raised to state supervision as such, but rather to the negative form which now exists. State supervision of a flexible, directory kind might well be as helpful and stimulating in improving county government as the present statutory form is harmful and deadening. Statutory proscription and interference, however, do not end with setting limitations of tax rates and controlling county general fund expenditures, but extend also to the county school fund, determining debt limitations, and even specify the interest rate which counties must pay on warrants of indebtedness.

The third basic condition which must be faced in considering government in these two counties arises from the general misunderstanding, indifference and hostility among the citizens themselves toward their county governments. This is perhaps the most important influence in determining the pattern of local government. This general attitude of citizens finds expression in numerous forms generally considered prejudicial to good government, and looses important negative or destructive influences.

Farmers, and this includes directly or indirectly, practically everyone in both counties, thought that salaries paid to county officials were much higher than they were. General misunderstanding of the costs of living in town existed, and many farmers stated that one to two dollars a day would be sufficient pay for county officials. There was small recognition that technical training in greater or less degree is required of all county officials, hence rapid rotation of office was urged. Closely allied with this belief, or growing out of it, were three others, namely, that anyone of legal age can fill any county office, that one term of office is both long enough for the incumbent to lay by considerable wealth, and also to become expert in managing a county office in the incumbent's own rather than the public's interest. A farmer in one county ran for county judge in 1933 with the declared purpose in his personal announcement of getting back in county salary part of the taxes paid to the county in former years. This man also offered to serve for half the salary then being paid to the county judge.

Equally well entrenched were the beliefs that the administration of county government was dominated by townsmen living in the respective county seats, and that the county-seat magisterial districts received the lion's shares of county expenditures. Findings of the study indicate clearly that neither belief was correct, but of what avail, if citizens believe contrariwise. Complaints, too, were widespread that farm taxes were oppressively high. Detailed analysis showed that this complaint was not well founded, and that the burden of taxes in these counties was about average.

In view of the basic conditions outlined in the preceding paragraphs, certain conclusions were reached. First, it is difficult to see how appreciably improved schools, roads and other governmental services can be provided in these counties, except through increases in either state or

federal aid, or both. Under existing state laws, tax rates of levy cannot be increased. Sizable increases in local tax revenues must await improved economic conditions which in this area may be far distant. Consolidating two or more such counties will not help materially since the cost of maintaining most services increases in proportion to the enlargement of area or population. Combining each of these counties with an adjoining wealthier county might make it possible to provide additional services with reasonable increases in taxes throughout the entire area. Simple consolidation, however, does not appear to be the solution for inadequate county tax bases. Multitudinous other factors need also to be considered.

Probably the single greatest obstacle to efficient administration of county government is the lack of centralized control in either a single office or board. For several years in both counties, expenditures have outrun revenues, and difficult debt situations have developed in each county. Extreme decentralization of authority, necessary increases in certain expenditures because of the depression, declining assessments, and rigid state statutory control were the major contributing factors in creating these bad debt situations. Interest on debt alone now takes more than one-third of each tax dollar in one county and almost one-third in the other. All bonded indebtedness in both counties is in the form of sinking fund bonds. In one county, a sinking fund of considerable size has been accumulated, whereas in the other, there is no sinking fund of any consequence. Before the recent enactment of the retail sales tax law in Kentucky, which provides that one-third of the collections is to go back to the counties for road debt payments, it was difficult to see how either debt default or scaling down of debts could be avoided in the latter county.

Reorganization within the counties would permit some reduction in the cost of government without the impairment of essential services, but in order to bring revenues and expenditures into balance much more than reorganization will be necessary. Available tax resources within the counties are such that this balance can be achieved without serious impairment of services only if large amounts of outside aid are forthcoming. Future maintenance of a balance between revenues and expenditures will probably only be possible through centralized budgetary control.

In view of conditions revealed by this study, material improvement of local government in these two counties will likely proceed slowly and encounter many obstacles. The most serious of these is undoubtedly the negative attitude of citizens as outlined in the immediately preceding paragraphs. The major adverse effects of this attitude upon the efficiency of local government may be summarized as follows:

1. Many able and public-spirited citizens are discouraged from seeking public office.
2. County government loses importance in the eyes of the electorate. The resulting indifference gives added incentive for self-seeking individuals to use public office for other than the best interests of the county.
3. At least some county offices become more important as stepping stones to places in state political circles than as opportunities to serve the local people.
4. The incentive to improve upon the work of one's predecessors in

office is reduced by short terms in office, low salaries, and citizen indifference.

5. The pressure exerted by many persons who want to hire teams or farm equipment to the county, who want to sell supplies to the county, who want to be employed by the county, or who desire some direct aid from the county, makes it difficult to hold local government expenditures within reason.

Education appears to be the only means whereby a change may be effected in citizen attitude. The traditional conservatism generally ascribed to rural people is a dominating force in the conduct of government in these two counties, and must be fully and frankly recognized in planning reorganization of local government. With county government as now organized, more than 25 percent of the electorate in each county receive pay from the county during the year for either goods or services or both. The attitude of this large favored group toward changes affecting their status is a powerful influence to be considered in all proposed changes in government.

This situation, however, is not without its bright side. In such counties as these, where the duties of most offices do not require full-time attention of able people, there is an excellent opportunity for public-spirited citizens to seek such offices as a means of rendering competent and efficient service to their counties. Full-time service of these men could not be obtained at rates of compensation permitted by existing revenues, but part-time service might afford one solution to the difficulty. A person seeking as his sole source of livelihood a public office which carries only a small remuneration may be very incompetent, and, as a result, cost the taxpayers far more than the amount of his pay. At least the more important public offices should not be viewed as opportunities for otherwise unemployable persons to make a living. Intelligent citizens should consider such angles as these when they go to the polls.

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FACTORS AFFECTING FARM REAL ESTATE VALUES IN THE UNITED STATES¹

The appraisal of farm real estate necessitates forecasts of farm real estate values as a whole, and of the relative values of individual properties. While the second of these problems may be the most complicated, involving a multitude of factors such as soil and location, it is perhaps true that most of the difficulties experienced by buyers, lenders, and borrowers since pre-war days have resulted from failure to correctly appraise the general trend of farm real estate values. A number of factors are responsible for this failure, one of which is the difficulty of making a concrete, definite quantitative estimate of the probable effects of changes in the several factors commonly held to be responsible for fluctuations in the general level of farm real estate values. In addition, of course, there is the difficulty of forecasting changes in these factors themselves.

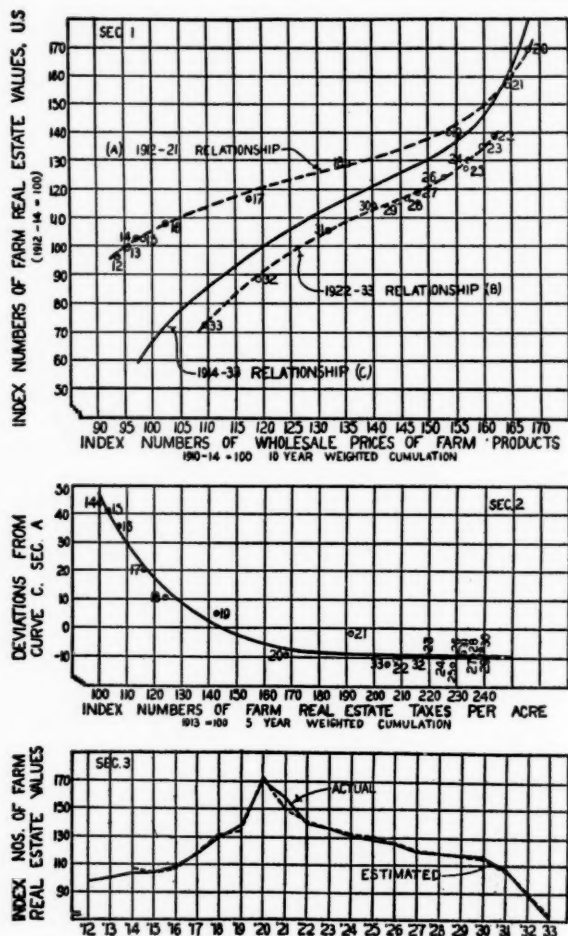
Discussions of factors affecting the general level of farm real estate values in the United States usually feature gross income, net income, prices, taxes, rate of capitalization, number of foreclosures, number of farms available for purchase, the psychology of buyers, opportunities in occupations other than farming, and so on. Line graphs of the general price level, ratios of prices received for farm products to prices paid for commodities used in living and production, interest rates on farm mortgages, and other factors are shown, together with index numbers of farm real estate values. It is generally recognized that all or most of these factors bear some relation to farm real estate values, but apparently no published quantitative analysis of the net relation of each factor to land values, after allowing for the influence of the other factors, has been made. The accompanying analysis is an attempt to indicate some of these net relationships, and to sift out from the jumble of factors commonly considered to be of some importance, those which actually are predominate in determining the general level of farm real estate values in the United States. Since the analysis by no means is complete, being a by-product of another research project not directly related to land values, it is offered merely as suggestive of the possibilities of a more quantitative approach to the subject than has been commonly followed.

The entire analysis is contained in the accompanying figure, which requires little explanation to agricultural economists, most of whom probably are familiar with the graphic method of multiple correlation. The index numbers of farm real estate values for the years 1912-33, inclusive, the longest period for which such data were available, are from U. S. D. A. Circular No. 309, "The Farm Real Estate Situation for 1932-33." The index numbers of wholesale prices of farm products are from Table 3 of Warren and Pearson's book, "Prices." The farm price index numbers of the U. S. D. A. were not used because they were not available for years prior to 1910. The index numbers of farm real estate taxes per acre are from "The Agricultural Situation," published monthly by the U. S. D. A.

The first question which arises is, What factors do farmers and others use in formulating judgments as to probable future gross income from

¹ Contribution from the Department of Agricultural Economics, Missouri Agricultural Experiment Station. Journal Series No. 403.

farms? In order to answer this question, the relationships between farm real estate values in the United States and various factors such as gross income from farming in past years, wholesale price of all commodities, and other factors were roughly ascertained. Various lags and weighted cumulations were used. It was found that a ten year cumulation of wholesale prices of farm products, weighted inversely as the number of years distant from the year for which the cumulation is calculated,



showed the closest association with changes in farm real estate values during the period 1912 to 1933, inclusive. This indicates that farmers and others whose judgments influence farm real estate values base their expectations of future gross incomes on what has happened to farm product prices during the ten years immediately preceding, with each year carrying less weight as it recedes into the past.

As shown by Section 1 of the chart, the weighted cumulations of wholesale prices of farm products were closely related to changes in farm real estate values during the period 1912-21, inclusive (Curve A). The shape

of this curve may be logically accounted for, in that when wholesale prices of farm products reach extremes, either high or low, the effect on net profit or loss becomes more marked, because of the relation between prices and fixed costs, thus resulting in a steeper slope of the curve at these extremes. The fact that the curve for the period 1922-33 (Curve B) assumes a very similar shape, and that the curve representing the *net* relationship for the entire period 1914-33 (Curve C) also has this shape, further justifies the use of these curves, as does the fact that the dots representing the individual years fall closely on the lines of estimate. The degrees of freedom lost by using a curve of this shape has a negligible effect upon the validity of the conclusions, in view of the large number of years included in the analysis.

If either of the periods 1912-1921 or 1922-33 alone had been used in the analysis, probably no factors other than wholesale prices of farm products would have been used, since the variations in land values during each of these two periods would have appeared to be explained almost completely by the variations in the cumulated wholesale prices of farm products, as evidenced by the fact that all of the dots fall approximately on the curve. When the entire period 1912-1933 is included, however, it is evident that there was a distinct difference in the relationship between farm product prices and farm real estate values in the first and last halves of the period. During the period 1922-33 any given cumulated level of farm product prices resulted in a lower level of farm real estate values than it would have during the period 1912-21. This change in the relationship was in the nature of a trend. Some factor or factors other than changes in wholesale prices of farm products were responsible for an upward trend in farm real estate values from 1912-1921, and a downward trend from 1922 through 1933. By using a curve representing the net average relation between the cumulations of farm product prices and farm real estate values, and plotting the deviations of the individual years from such curve against the series of years in chronological order used as a horizontal scale, the upward and downward trend would have been disclosed.

It is of little value, however, to indicate that such trends have existed, unless they can be explained. A number of possible factors were used to determine responsibility for the trends. Since these factors, such as prices paid for products used in living and production, farm wages, and farm real estate taxes are all closely correlated, the relationship between any one of them and the trend in farm real estate values actually might cover up a similar relationship between real estate values and other factors. However, various trials indicated that a five-year cumulation of farm real estate taxes, weighted according to the same principle as were the cumulations of wholesale prices of farm products, bore a considerably greater relation to the deviations of the individual years from Curve C in Section 1 than did any other factor or combination of factors. This net relationship of farm real estate taxes to farm real estate values during the period 1914-1933 is shown in Section 2 of the chart. It was not possible to include 1912 or 1913 in this part of the analysis, or to experiment with cumulations of taxes longer than five years, because of the lack of data covering years prior to 1913. In making the five-year cumulation of farm real estate taxes for the years 1914-16, it was estimated that the index numbers for 1910 through 1912 would not be ma-

terially different from 1913. Thus, the curve in Section 2 and the net curve in Section 1 (Curve C) represent net relationships for the period 1914-1933.

The extent to which variations in wholesale prices of farm products and farm real estate taxes accounted for the fluctuations in farm real estate values during this period is indicated by the close correspondence of the actual index numbers of farm real estate values and the index numbers estimated from the two curves, as shown in Section 3 of the chart. The greatest difference between the actual and estimated index numbers was 12.5 for 1921. In no other year was the difference greater than 4.0, and in all except seven years the differences were quite negligible. Of course, some other factors closely correlated with wholesale prices of farm products, or with farm real estate taxes, may have influenced farm real estate values during this period, such influence being obscured by their close association with prices and taxes.

The extent to which the cumulations of farm product prices and taxes accounted for variations in farm real estate values during the years 1914-1933, as shown by this analysis, may be expressed mathematically as the index of correlation ($P=.993$). If this index is squared, a percentage determination of 98.6 is obtained. This indicates that nearly 99 percent of the variations of farm real estate values during the year 1914-33 are accounted for by cumulated changes in wholesale prices of farm products and farm real estate taxes.

It is quite possible, of course, that in future years farm real estate values will not bear the same relationship to wholesale prices of farm products and farm real estate taxes which they have in the past. This relationship depends upon the manner in which buyers and sellers interpret the future in terms of the past, and all experience with price analysis and forecasting indicates that farmers and business men are deplorably lacking in a sense of courtesy to the price forecaster, changing their reactions without reasonable notice, and frequently in a seemingly pre-verse effort to scramble the results of laborious analyses. Hence, it would be an unwarranted use of the analysis to forecast farm real estate values for the future, based on these past relationships and expected future changes in farm product prices and taxes, without taking into account possible changes in the location or shape of the two curves. However, it may be noted that some of the difficulties encountered with forecasts based on such an analysis would be absent in this case. The period of years covered includes years in which extremes of both prices and taxes were encountered, thus making unlikely the necessity of extending the curves beyond the realm of past experience. The period also includes years in which were encountered high prices and low taxes, high prices and high taxes, low prices and low taxes, low prices and high taxes, and gradations between. If the analysis had covered any shorter period these extremes and combinations would not have been encountered, which certainly would have caused any forecast based on such an analysis to be wrong at any time that such extremes were encountered, as during the last several years, even though fundamental reactions of buyers and sellers had not changed. The applicability to the future of the present analysis is much more likely to be conditioned or limited by actual changes in the reactions of buyers and sellers than by limitations of the range of past experience with the dependent or independent factors.

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PART-TIME FARMING IN THE TWIN CITY AREA OF MINNESOTA

One of the studies pertaining to part-time farming initiated in 1934 by the Division of Subsistence Homesteads, Department of Interior, was made near the Twin Cities. The objectives in this study were, (1) to discover to what extent this class of people was in need of assistance, (2) to obtain light on the nature of the help required, and (3) to find the types of situations to which part-time farming is adapted and the kind of procedure to be most effective. A part-time farmer as used in this study was designated as the head of a household who spent part of his time on a major occupation other than farming, one living on a homestead covering a half acre or more which furnished a considerable portion of the family food, or one living on a tract of land and receiving other income including pensions or annuities.

There were 1,287 part-time farmers around the Twin Cities interviewed, of which 1,057 were owners and 230 tenants. Several definite types of production were discovered—fruit and berries, vegetables, poultry, and general farming with the largest proportion of the income from dairy and livestock. Approximately 2 per cent of the tenants and 11 per cent of the owners were producing fruits and berries. Four per cent of the tenants' income and 13 per cent of the owners' income came from this source. It is significant to note that apparently tenants are not inclined to enter into a type of production which requires several years to bring it into full production, but rather they follow that type from which some return can be obtained rather quickly. Tenants had remained on the same homestead an average of three years and owners an average of nine.

The average size of the farms studied was 4.8 acres, the owners averaging 4.6 and the tenants 5.6. The owners' vegetable garden amounted to 1.8 acres and the tenants' 2.1. There was no significant difference in the size of part-time farms in areas close to the cities and those farther away. This might indicate that there may be reasons other than income for people buying part-time farms.

The value of these farms was dependent to some extent on their size, although the variation in the value was not as great as the variation in the size. The average valuation per farm was \$2,543, or \$530 per acre. The valuation of the farms operated by owners was \$2,609 and by tenants \$2,238. The value of the former averaged \$167 more per acre than the latter. The houses averaged 4.7 rooms for all farms and there was no difference in the average size of the house on the owned and rented farms. The owned farms had more modern conveniences than the tenant farms and a larger proportion of the owned farms had such conveniences. It is significant to note that 68 per cent of the value of the farm was in buildings, 57 per cent being in the house and 11 per cent in other buildings. The percentage of the capital in buildings was higher on owned than on tenant farms. As the farms increased in size the proportion of the capital in buildings decreased. The proportion in the dwelling alone varied from 75 per cent on farms of less than two acres to 45 per cent on farms over five acres.

There were four principal sources of income from these farms but most farmers depended on one of these sources for their main income. Because

of the small size of the farms it was necessary to utilize all available resources along a particular line in order to make the main enterprise pay. Table 1 gives the distribution of farms and income by sources.

TABLE 1.—DISTRIBUTION OF INCOME AND FARMS OF 1,287 PART-TIME FARMERS IN THE TWIN CITY AREA IN 1933

Major source of income	Per cent of farms		Total	Per cent of income		Total
	Owner	Tenant		Owner	Tenant	
Vegetables.....	39.1	42.2	39.7	31.3	35.1	31.9
Poultry.....	32.4	41.8	34.1	26.5	28.5	26.8
Dairy and livestock.....	17.5	14.2	16.9	16.9	17.0	16.9
Fruit and berries.....	11.0	1.8	9.3	12.7	4.4	11.3
Miscellaneous.....	....	....	....	12.6	15.0	13.1
	100.0	100.0	100.0	100.0	100.0	100.0

The proportion of income from dairy and livestock products and from fruit and berries was larger for owned farms than for tenant farms. Because of the time required to bring fruit and berry planting into production there were not many tenants in this type of production. Furthermore owners are reluctant to risk such permanent forms of production to shifting tenants. On the other hand the proportion of the income from vegetable and poultry products was greater on tenant than on owner-operated farms.

The gross income from these farms in 1933 averaged only \$271 of which 55 per cent or \$149 was in the form of cash and the remainder in the form of food and fuel used by the family. The tenants obtained 7 per cent more of their food from the farm than the owners did and the owners bought 5 per cent more of their food than the tenants did. This may indicate that more of a self sufficing type of farm is more important to the tenant, because of his situation, than to the owner.

The proportion of the different kinds of products raised which were consumed on and sold from these part-time farms is indicated in Table 2.

TABLE 2.—PROPORTION OF PRODUCTS RAISED WHICH WERE CONSUMED AT HOME AND SOLD BY PART-TIME FARMERS AROUND THE TWIN CITIES IN 1933

	Vegetables	Fruit and berries	Poultry and eggs	Dairy products	Livestock
Sold.....	67	80	68	29	68
Consumed.....	33	20	32	71	32

It is of interest to note that the consumption of these products was greatest per family on farms where the production of them was greatest. Increased consumption of fruits and vegetables had no appreciable effect on the amount of food purchased per family. The food purchased per year was only \$23 higher per family on 415 farms which had no poultry than on 872 farms which had poultry. However, on the 872 farms which had poultry there was a tendency for the amount of food purchased to increase as the sales of poultry products increased. Thirty per cent of the farmers kept cows. A larger proportion of the production from cows was consumed in the home than of any of the other products. The consumption of dairy products on farms with two cows was 42 per cent more than on farms

with one cow and on farms with more than two cows it was 83 per cent more than on farms with only one cow. The value of the consumption of dairy and poultry products on farms which produced these products was greater than the additional food purchased on farms which did not raise these products. It would appear that increased consumption of products produced on the farm tends to raise the level of living as far as food is concerned instead of reducing to any appreciable extent the amount of food purchased.

Approximately 80 per cent of the total income came from non-farm sources and amounted to \$560 per family. The kind of non-farm work done was classified as unskilled, skilled, and white collar jobs. Of those doing non-farm work, 58 per cent were unskilled, 31 per cent were skilled and 11 per cent were white collar workers. The average non-farm income for the unskilled worker was \$450, for the skilled \$630, and for the white collared worker \$938.

The average length of time the owners had been on their farms was nine years. Some farms were purchased previous to 1909 and some after 1929. Farms purchased in recent years had a higher ratio of debt to value than those purchased earlier. This is due to the decline in values in recent years and to some liquidation of the mortgage on the purchases made in the earlier years. Table 3 gives the ratio of debt to value and the period of purchase.

TABLE 3.—RATIO OF DEBT TO VALUE OF PART-TIME FARMERS
AROUND THE TWIN CITIES IN 1933

Period purchased	Present ratio of debt to value	Per cent of mortgaged farms in 1933
Before 1909.....	13.4	4.7
1909-1913.....	17.0	4.9
1914-1918.....	27.2	7.7
1919-1923.....	33.1	19.1
1924-1929.....	53.1	32.2
1930-1933.....	68.1	31.4
Average or total.....	47.7	100.0

Seventy-two per cent of all these farms were mortgaged. The debt on 21 per cent of the mortgaged farms exceeded the 1934 valuation. The debt was extremely heavy on 39 per cent. This suggests some question as to the liquidation of the debt on approximately two-fifths of these farms. Forty-two per cent of the farmers who are heavily in debt were delinquent on their interest and principal payments and 25 per cent of those carrying light debts were delinquent.

More than one-half of the owners purchased unimproved land and added buildings and other improvements later. This indicates that prospective part-time farms were not available to purchasers in the majority of cases. If improved part-time farms had been available the investment on the part of these farmers would probably have been less.

Probably the greatest advantage part-time farming has to offer is that it furnishes an opportunity for producing a portion of the food used in the home, cheaper house rent, and some out-of-doors activity for the family away from the crowded conditions in a city rather than a profitable investment from the financial viewpoint.

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THE STEPPED PRICE SCHEDULE FOR FLUID MILK

For many years prior to the depression there was a slow but steady increase in the per capita consumption of fluid milk and cream in our large urban milk markets. Since 1929, however, the sharp reversal of this trend has been a matter of concern to milk producers, distributors, control authorities and those interested in the public health generally. Although a large part of the decline in demand is without doubt due to the shrinkage of consumer incomes, and may be expected to give way to increased utilization as economic conditions improve, there is nevertheless basis for fear lest the revised consumption habits become permanently set.

There is even more ground for concern when we realize that in the New York milk market the peak of per capita consumption of milk apparently came about 1927, and that the decline had already set in before the severity of the depression had been realized.¹ Although this may have been due in part to the high level of prices prevailing at the time, the extraordinary decline in the birth rate in the past decade cannot be neglected as a factor affecting per capita consumption. In New Jersey, for example, the number of births declined steadily from 76,530 in 1924 to 56,072 in 1933, or more than 25 per cent, although the total population increased during the same period from 3,440,000 to more than 4,300,000.² Inasmuch as milk consumption by children and adolescents has probably constituted the largest and most inelastic component in the demand for fluid milk,³ the changing age composition of our population would seem to be a dynamic factor whose influence in the future cannot safely be neglected by the milk industry. If even the present aggregate volume of consumption is to be maintained, some way of building up utilization in other directions must be found.

It is generally agreed by pediatricians and public health authorities that per capita consumption of milk is considerably below the optimum, and that the available milk supply is not excessive in relation to desirable standards of utilization. Nevertheless efforts to stimulate the use of milk by resort to advertising media—as in New York state—have not yet produced significant results in the face of low consumer incomes and the possibility of substituting alternatives for milk in many uses. As an adult beverage milk must compete with many others; as a culinary ingredient it faces the substitution of skim milk, dried milk, evaporated milk, and other products not based on milk. It seems doubtful if the use of fluid milk can be greatly expanded against such competition unless its price can be placed more nearly on a basis of competitive equality. Conversely, any further relative movement of milk prices upward would encourage adverse substitution.

What then can be done to meet the problem of substitution of other commodities for fluid milk in the range of competitive utilization, and/or to build up new or extended uses for milk to offset the probable shrinkage

¹ Graph, "Per Capita Consumption of Milk and the Milk Equivalent of Cream. New York Market." *Farm Economics*, February, 1934, reproduced in "The Dairy Situation in the Northeast." New York State College of Agriculture, Dept. of Agricultural Economics and Farm Management, Nov. 1934, p. 9.

² State of New Jersey, Department of Health. Annual Report, 1933, p. 228, supplemented by information furnished directly to the writer.

³ See, for example, C. B. Howe and W. C. Waite, *The Consumption of Dairy Products in Seven Metropolitan Cities of New Jersey*. New Jersey Agricultural Experiment Station. New Brunswick, New Jersey. October, 1932.

in consumption by children and adolescents? At the present time there are few milk markets in which there is not a substantial excess of milk production as compared with demand for fluid consumption at current prices. The excess must be separated for sale as cream or utilized for the production of butter, cheese, ice-cream, and other dairy products. Where a substantial volume of milk must be sold through these more highly competitive, lower-price outlets, as Class 2 or Class 3 milk, the average or "blended" price received by the milk producer for his entire output is materially reduced. Any device which would stimulate demand in a higher price classification would improve the situation by reducing the volume to be sold in the lower-priced outlets.

There seems to be reason to doubt whether a general horizontal reduction in retail fluid milk prices would, in the short run at least, shift the domestic demand sufficiently to effect a net increase in total (blended) receipts from milk sales through *all* outlets, although it might do a great deal to improve the longer run adjustment of productive facilities to demand, and forestall a permanent loss of a part of the market. The distributors could scarcely absorb in its entirety a price reduction designed to stimulate consumer demand even though an increase in the volume of sales would presumably reduce unit costs of milk distribution. Assuming that a substantial part of any reduction would therefore be reflected in the price paid to the farmer for milk sold for fluid consumption (Class 1 milk), he would get a smaller return on the part of his production formerly sold as Class 1, and a larger return on milk shifted upward from Class 3 or Class 2. Inasmuch as a 1 cent reduction in retail price, if shifted completely to the producer, would involve nearly a 20 per cent reduction in his receipts per quart, the consumer response even to a small reduction in retail price would have to be large if the producer would break even.

If the short-run advantage of a general price reduction seems doubtful as it bears on the milk producer, whatever the longer run effect, it may be worth while to inquire whether there is any method of making promotional price concessions in an effort to stimulate demand without at the same time altering the entire price structure.

One possible method which suggests itself is the use of a stepped price schedule for retail sales of milk, similar to that employed by public utility companies to encourage the increased use of electric power in the home. A typical utility schedule varies the rate from 9 cents per KWH for the first 20 kilowatt hours, to 3 cents per KWH for all over 50.⁴ It is assumed that a certain amount of current is utilized for lighting and similar services, in which substitution is unlikely. This class of service is therefore expected to bear the bulk of the service costs attributable to the individual customer. Additional power cannot be sold, however, unless the price for the additional quantity is reduced to a level of competitive equality (convenience considered) with ice for refrigeration, gas for cooking, etc.

In many respects the demand situation for fluid milk resembles that existing in the electrical industry. Furthermore, the conditions surrounding the service in each case make a resort to the stepped rate promotional

⁴ Public Service Company of New Jersey. General residence rate.

The first 20 kilowatt hours per month—9c per KWH					
The next 20	"	"	"	—7c	" "
The next 10	"	"	"	—6c	" "
All over 50	"	"	"	—3c	" "

device theoretically sound; in both the commodity must be supplied continuously or recurrently, and cannot be purchased in advance of need and stored—the circumstances which make a stepped rate impossible for the majority of goods.

The schedule which follows is intended merely to illustrate the principle as applied to milk. It is assumed that the present average fluid consumption is less than 40 quarts per month per family. The objective is to expand total consumption beyond 40, while looking to that 40 quarts to cover the major costs of distribution to the customer.

	Total amount per step	Cumulative total
The first 10 quarts per month ⁵ 14¢ per qt.....	\$1.40	\$1.40
The next 10 13 	1.30	2.70
The next 10 12 	1.20	3.90
The next 20 11 	2.20	6.10
The next 25 10 	2.50	8.60
All over 75 9 (or 8).....		

The initial step in this schedule is one cent higher than the 13 cent minimum rate for grade B milk now prevailing in certain New Jersey areas. This is on the assumption that a higher charge is warranted in order to cover the cost of intermittent service, inasmuch as delivery stops, bookkeeping, collection costs and overhead items per account do not vary significantly with volume. The user of one quart per day or thirty quarts per month (representing a large class of customers) is left precisely where he stands under the present flat minimum price of 13 cents per quart although he is exposed to the psychological influence of a diminishing price. From this point on a progressive advantage would be derived from the expanded use of milk, the marginal price diminishing faster than the average price. The consumer of 60 quarts would pay \$7.10 as compared with \$7.80 under the flat rate; he could increase his consumption to 75 quarts for an additional \$1.50 and to 100 quarts for an added \$3.75 as against \$5.20 under the flat minimum rate.

The essential basis for a resort to the stepped rate device is that additional sales made in this way would in large measure affect milk now sold as surplus, without affecting, in the same degree as a horizontal price reduction, the price of milk already being sold for fluid utilization (i. e. as Class 1). Even though the producers would probably have to take less than the full Class 1 price for the *additional* milk sold, they would benefit to the extent that this afforded a better outlet for milk now going into still lower priced outlets.

It has been suggested that the proposal is based on a false analogy, inasmuch as an electric utility is a monopoly, whereas the milk industry is competitive; that the device could be used, if at all, only where milk distribution is already unified. In the same vein it is said that the power company enjoys a unified mechanical control of the product clear through to the appliance in the customer's home, whereas the milk distributor must depend upon a human agency to maintain the line of contact with

⁵ For a customer taking both A and B milk, the schedule might be adjusted as follows, (taking the first three steps as an illustration):

1st step:	5 qts. B @ 14c;	5 qts. A @ 16c
2nd "	5 " " " 13c;	5 " " " 15c
3rd "	5 " " " 12c;	5 " " " 14c

A supplementary schedule should of course be devised for cream.

the consumer. Moreover the consumer may decide on a moment's notice to use an electric appliance, whereas he must foresee his needs if he is to purchase additional milk through the normal delivery process.

Based largely on these more general considerations are certain practical objections: (1) that milk drivers will be tempted to graft under the system by carrying fewer customers on their books than they actually have, and pocketing the margin afforded by the pooling of the smaller orders;⁶ (2) that the customers will be unable to understand the system, with consequent friction and ultimate demoralization of the entire price schedule; (3) that consumers may defeat the purpose of the plan by pooling their orders under a single name and delivery; (4) that the scheme would conflict with the weekly collection periods employed by many milk distributors.

Whether a satisfactory method of controlling the chiselling driver can be devised either by a modification of the usual commission system of remuneration or some other measure is a matter to be investigated.⁷ The pooling of orders by individual consumers or groups of consumers (as in apartment houses), however, might well result in worth-while economies in distribution costs by reducing the number of stops to be made, the number of accounts to be handled, and the like. Presumably pooling would rarely develop save where there was marked need for economy; it might serve in a measure as a method of differentiating the needy from the economically more able consumer. To the extent that pooling might develop it would offset another criticism of the plan, namely, that the high initial step would discriminate against the customer who cannot afford to buy as much as a quart of milk per day. On the other hand, the present flat minimum rate of 13 cents per quart affords him relatively scant relief. The scheme might be adjusted to a weekly collection basis either by applying credits for volume earned during the month as a reduction in the 4th weekly bill, or by returning a cash dividend to the consumer at the end of the month.

No doubt the most serious question is whether the rate of progression toward lower prices for marginal increments of demand could be made sufficiently spectacular to induce the *additional* consumption necessary to make the plan worth while. There is authoritative opinion to the effect that the demand for milk is inelastic, accompanied, to be sure, by certain qualifications with respect to the influence of broad changes in underlying economic conditions.⁸ Nevertheless, demand has shifted during the depression, and if the implications of population trends have been correctly interpreted, there is little room to suppose that the inelastic component of the demand will soon resume its former magnitude. If that be so, a recovery in the volume of sales must be effected by centering attention on that part of the demand which is elastic, and presumably somewhat responsive to price appeal.⁹ It may be that a stepped rate plan cannot be

⁶ Some such instances have been reported in markets where a special price was offered on purchases of a given size, e. g., three quarts at a time.

⁷ The problem of control would probably be less serious in cities where distribution is unified, in suburban areas where more accounts are carried on the dealers' own books, or in the case of producer-distributors or other small dealers having fewer drivers to supervise.

⁸ H. A. Ross. *The Demand Side of the New York Milk Market*. Cornell University, Agricultural Experiment Station, Ithaca, N. Y. Bulletin 459. July, 1927.

⁹ R. W. Bartlett has collected a considerable amount of evidence concerning the competitive relationships between milk and other foods, and the effect of relative shifts in price on consumption of milk. *Prices and Consumption of Milk in Specified Cities*. University of Illinois, Agricultural Experiment Station, Bulletin 397, Jan., 1934.

developed which does not sacrifice too much in price on the volume already being sold (since customers now buying more than the amount covered by the first three steps would get a slightly lower average price without buying any additional milk). Nevertheless, it is felt that the device would afford an opportunity to feel out the possibilities of increasing consumption as against substitute commodities, without embracing the greater hazards of a general price cut. At any rate the various components of the demand for fluid milk cannot be exploited to the fullest possible extent unless some plan of retail price differentiation can be developed. The stepped rate price structure is suggested for consideration as one way of attacking the problem.¹⁰

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¹⁰ Two more or less mutually exclusive arguments may be advanced against the stepped rate in this connection. If, on the one hand, there are now many customers buying more than 40 quarts per month, or if large numbers should pool, the average price would be reduced considerably before any additional business came in. If on the other hand, there are few customers buying as much as 40 quarts, the actual inducement offered to the bulk of the customers to expand demand would be very slight (one cent per quart at best). The available data afford little basis for determining the actual distribution of purchases among accounts of varying size, and, therefore, the steepness of the progression necessary to stimulate demand. If there are few large accounts even a sharp progression would not seriously affect average receipts; if there are many, a more gradual progression would still leave a considerable number of users open to the stimulus of low marginal prices.

EFFECT OF TAX RATES ON LAND VALUES

Data are available in the 1934 Minnesota Yearbook, pages 192-193, as to the average 1933 tax rate for each county in Minnesota. In order to test the effect of taxes on land values, five representative counties that are largely rural have been selected in the high tax group and five similar counties have been selected in the low tax group. The counties studied with their average 1933 tax rates are the following:

<i>High Tax Group</i>		<i>Low Tax Group</i>	
County	Average 1933 tax rate in mills	County	Average 1933 tax rate in mills
Beltrami	128.89	Carver	38.64
Cass	124.14	McLeod	41.86
Clearwater	91.80	Rock	39.49
Mahnomen	92.62	Sibley	38.76
Roseau	98.79	Jackson	38.75
Average (unweighted)	107.25		39.50

In getting the average tax rate for the county, village and city property was not separated from property outside of incorporated places. However, it is probable that the averages reflect fairly well the difference in taxation rates on farm property.

With an average rate of 107.25 mills in the high tax group and 39.50 mills in the low tax group, the tax in each case on a farm property having a true and full value of \$1,000 and assessed at $33\frac{1}{3}$ per cent as per the Minnesota law, would be as follows:

High tax rate:

Tax on $33\frac{1}{3}\%$ of \$1,000 or \$333.33 at 107.25 mills..... \$35.75

Low tax rate:

Tax on $33\frac{1}{3}\%$ of \$1,000 or \$333.33 at 39.50 mills..... 13.16

Difference

\$22.59

Capital value of difference at 5% \$451.80

This assumes that the owner in each case is not entitled to homestead exemption. However, the problem is complicated by the fact that the first \$4,000 of true and full value in the case of homesteads is assessed at 20 per cent of such value. In the high tax counties, a great part of the farm property occupied by owners would be assessed at the twenty per cent rate instead of the $33\frac{1}{3}$ per cent rate.

If one assumed that the high tax counties the usual thing was for the owner-operator to own property with a true and full value of \$4,000 or less and that in the southern counties the usual true and full value of each farm unit was \$10,000, and that the first \$4,000 would be assessed at 20 per cent of the true and full value, then on each \$1,000 of true and full value the comparative situation would be the following:

High tax group:

Tax on 20% of \$1,000 at 107.25 mills..... \$21.45

Low tax group:

Tax on 20% of the first \$400 of each \$1,000 of true and full value at 39.50 mills	
Tax on 33 1/3% of the last \$600 of each \$1,000 of true and full value at 39.50 mills	7.90
Total tax on \$1,000 of full value.....	\$11.06
	<hr/>
Difference	\$10.39
Capital value of difference at 5%	\$207.80

Assuming that the customary assessment in the high tax counties would be on the basis of 20 per cent of the true and full value and that in the southern counties the usual assessment unit would be \$10,000, with the first \$4,000 of owner-operator farms assessed at 20 per cent of the true and full value and the last \$6,000 at 33 1/3 per cent of the true and full value, a unit of land with the same productivity would be worth 21 per cent more in the low tax region than in the high tax region. This assumes that the difference in tax situation is permanent and that in each the governmental services received are equal. However, the quality of service as regards roads and schools is probably better in the low tax regions.

It is to be expected in the regions having a considerable percentage of rented land that differential taxation in favor of small owner-operators will do considerable to stimulate land sales as in a township and county where a considerable proportion of the farms are operated by tenants, there will be relatively little tendency to raise the rate to make up for decreases in revenue raised by a given mill levy. However, there will be a tendency for the benefits to the owner-operators, as a group, to diminish if differential taxation results in a large increase in the number of homestead exemptions, as reducing assessed valuations will necessitate a higher mill levy if the same budget is to be raised. There is the possibility that the difference in the amount of budget might be met by taxes other than those on land, in which case, present owner-operators, as a group, would enjoy a permanent benefit.

In any case, the tendency is likely to be strong towards ownership, as of two adjoining farms, one operated by a tenant and the other with an owner-operator, the one with the homestead right will have a substantially lower assessment.

Incidentally, in Minnesota, the preferential position of the owner-operator as regards taxation makes a strong selling point where sales to tenant-operators are under consideration.

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BOOK REVIEWS

The British Way to Recovery, by Herbert Heaton. Minneapolis: University of Minnesota Press. 1934. Pp. VI, 184. \$2.00.

Able treatment of an intensely interesting subject makes this brief yet comprehensive volume, by Herbert Heaton, Professor of Economic History at the University of Minnesota, a welcome book for reading and reference. As the title suggests, it is a record of plans and policies followed in Great Britain, Australia and Canada during the depression in order to provide the three r's, namely, relief, reform and recovery. Throughout this analysis the happy combination of facts and opinions make the volume very inviting. The author discusses three countries in which he has lived, studied and taught and his thorough acquaintance with the countries coming under his survey is abundantly clear.

The major portion of the work concerns Britain where the author spent an eventful year—from the point of view of studying the topic under discussion—from August 1931 on. The reviewer also spent the summer of 1932 in Britain and perhaps partly for this reason finds this part of the volume so interesting and acceptable.

A chapter dealing with Britain which will no doubt be particularly interesting to the reader of this Journal is the one well labelled "The Rediscovery of the Farmer." Naturally, this contains many of the policies adopted and proposed to assist agriculture in Britain. This subject is important to all those on this continent interested in this particular field. The discussion of these policies given in this chapter must be read to be appreciated.

Equally interesting is the chapter dealing with Australia entitled "The First In and the First Out of the Depression." Policies pursued there have been different from those followed elsewhere. The treatment of wages during the depression is described in some detail, also the regulatory boards which had been established prior to the crisis which reached that country at an earlier period than its appearance in some other places. The comparatively late development of economics in Australia—perhaps a result of Edward Gibbon Wakefield's idea of settlement, that representatives of all classes of society should be included, with one omission, no economists were to be taken or sent there, being lived up to for a time—the recent rapid expansion of the work there and the contribution to recovery by economists, make indeed welcome reading.

"Canada Muddles Through" is the title of the last chapter. The transference of Britain's traditional role to Canada in this case is an indication that the author has few scruples about seeing things as they are, and states them as he sees them. This is a very valuable trait in presenting a volume on plans and policies of recovery. The variation in policies and plans for recovery followed in the three countries discussed is made perfectly clear throughout and this variation makes this volume of intense interest at this particular time.

In concluding the discussion of Britain in chapter six, page 121, the author states: "If recovery means a regaining of the condition of material welfare enjoyed in 1929, or still more in 1913, there must be a large expansion of overseas trade."

This opinion may require some modification or else greater elaboration than it is there given as some might contend that in some lines conditions have improved in Britain since 1929—(See Feavearyear, *The National Expenditure, 1932* in *Economic Journal*, London, England, March 1934)—and decidedly since 1914 albeit not as much as desirable. Obviously it is impossible to amplify statements of this nature in such a brief treatment. That this statement is made does not detract in the least from the volume. It really adds in affording meat for further discussion.

On page 167 in the discussion of the Canadian banking system the statement that "shareholders must accept double liability for twice the amount of their holdings" is obviously a misprint. One of these words, either "double" or "twice" should be omitted. This appears to be about the only place where any word could have been omitted as the volume is remarkably condensed.

These minor criticisms do not detract in the least from the pleasure of reading and recommending this valuable contribution to economic literature.

J. E. Lattimer

Macdonald College

Farm Credit Administration, by William I. Myers. New York: American Institute of Banking, 1934. Pp. 478. \$3.00.

As the title indicates this excellent book is not intended to be a complete treatise on the principles and problems of agricultural credit. It is intended to furnish bank employees, members of the American Institute of Banking, a suitable text for "a course which would present both the *how* and *why* in dealing with the organization of the Farm Credit Administration and the methods used by it in handling farm credit."

Chapter 1, on Agricultural Production and Its Effect on Credit, condenses in 21 pages a very lucid presentation of certain differences between agriculture on the one hand and industry and commerce on the other which have a bearing on agricultural credit. Some of the points touched upon include the size of the unit, rate of turnover, return on capital, and control over production.

While the book is primarily an exposition of the organization and functions of the Farm Credit Administration, the second and third chapters, covering 76 pages, are devoted to a discussion of farm credit prior to 1933. Here the author surveys the changes in the volume of farm indebtedness, sketches the contributions of the various private lending agencies serving agriculture, traces the development of the diverse governmental agricultural credit organizations and the conditions that led up to the coordination and centralization of the latter agencies by the present administration in Washington. The latter topic is presented in Chapter 4, and the succeeding eight chapters are devoted to a detailed but not critical exposition of the organization and operation of the Federal Land Bank System, the Federal Intermediate Credit Banks, the Production Credit Corporations and Associations, and the Banks for Cooperatives. This is not only well done, but undoubtedly is the only complete and up-to-date presentation of these matters in one volume.

A discussion of commercial credit principles and of credit instruments in relation to farm credit occupies chapter 13. Then follows a chapter on

Agricultural Mortgage Credit in Germany and Denmark, and the concluding chapter discusses Emergency Measures Affecting Farm Credit such as the Commodity Credit Corporation, Farm Debt Adjustment Committees, and the revision of the bankruptcy laws as applied to farmers.

In some respects this is the best text available on agricultural credit because the older texts are entirely out of date on the subject to which this book is primarily devoted. For class room use it would be desirable to supplement this text with readings in other and more analytical treatises on agricultural credit. Additional historical data may be desired by some teachers, and the non-governmental farm credit agencies deserve more attention in a college course in agricultural credit. The author is to be commended for having given us a very readable presentation of the organization of the Farm Credit Administration and of how it meets the difficult tasks of supplying agriculture with an ample volume of credit suited to its various needs.

Gabriel Landy

South Dakota State College

International Economic Relations. Report of the Commission of Inquiry into National Policy in International Economic Relations. Minneapolis: University of Minnesota Press. 1934. IX, 397 pp. \$3.00.

The Commission of Inquiry into National Policy in International Economic Relations, better known as the Hutchins Committee, held hearings, received memoranda, and conducted detailed investigations under the direction of Professor Alvin Hansen. The resulting volume is the best guide to an intelligent American foreign policy that is now available.

The book is divided into a summary of the recommendations of the Commission, a statement of the reasons for these recommendations, and a report by the director of research, Dr. Hansen. In addition, there are extensive memoranda covering statements submitted to the Commission; and the various hearings held are reported in brief summary. As a result of this method of presentation, the reader is afforded not only an orderly explanation and analysis of the specific measures advocated, but also an expression of the principal dissenting views and a discussion of various related problems. From the standpoint of the economist the most valuable part of the book is, in fact, contained in these supplementary memoranda. Among the topics covered are the relation of foreign trade to various aspects of the farm problem, questions of managed and unmanaged currencies, and types of trade restrictions. The quality of some of these memoranda sets a high standard.

The central idea of the report is that the United States should redress its balance of trade in commodities and services by building up an excess of import items. The danger involved in effecting a balance by the importation of gold, as has been done in recent months, is strongly emphasized. The importance of a new and stable adjustment is outlined in the following terms: "Loss of our foreign investments, a withdrawal from cultivation of a considerable part of our farm acreage . . . , a persistent volume of unemployment in our export industries until the long and hard path of transitional adjustments has been trod to the bitter end, and a lower standard of living—these are the prices that must be paid if constructive solutions

are not found for: (1) the lack of balance in our international accounts and (2) the current strangling of world trade" (p. 132).

The view that freer importation of foreign goods will substantially expand the market for American agricultural products has attained surprising vogue in recent months. It is sometimes suggested that an increase of \$500,000,000 in the volume of imports would automatically create an export demand for an equal volume of American agricultural products. In any such extreme form as this the argument is certainly false and even in its more moderate versions it must be applied with great caution. The belief that a change in any particular item of the international balance of payments must be equalized by a change in some other single item is one of the most familiar errors in discussions of international finance. The most we can say is that in the operation of the so-called "principle of promotions and detractions" (a change in any item of the balance of payments must be equalized by an opposite change in items on the same side of the balance, by a similar change in items on the opposite side, or by a combination of the two movements), some items are more adjustable than others. But that agricultural exports would prove highly adjustable seems improbable. Inasmuch as, first, the demand for manufacturers is much more elastic than the demand for agricultural products and, second, agricultural industries are now given high protection abroad, there is good reason to believe that such expansion as might occur in American exports would be more likely to take the form of manufactured than agricultural goods. And it should be recognized, also, that to the extent that proceeds of imports were used to service American investments abroad there would be no tendency for commodity exports of any kind to increase.

A redressing of our international balance of payments by granting greater freedom to trade is strenuously to be desired; but we are deluding ourselves if we look upon this as, in itself, an important solution of the problem of agricultural surpluses.

The committee is probably correct in saying that the reciprocal trade agreements now being negotiated are inadequate to effect the desired re-adjustment of export and import items. It seems to be less justified in arguing that tariffs should not be reduced substantially until prosperity has returned. Instead of this being a poor time to effect tariff reduction, it is probably a better time than we shall soon have again. Prosperity or depression, reasons can always be given for not reducing protection. As long as this spirit of caution prevails, we may expect little progress toward tariff revision or toward that redressing of the balance of payments for which the committee has made so strong a case.

C. E. Whittlesley

Princeton University

Prices of Cash Wheat and Futures at Chicago Since 1883. Wheat Studies of the Food Research Institute, Volume XI, No. 3, Stanford University. November, 1934. 49 pp. \$1.00.

This is a tabular and graphic record of wheat price data through half a century, with an analysis of cash future relationships. The formation of the weekly cash prices included therein is especially noteworthy in that they are the spot prices of such wheat as is being delivered or is expected

to be delivered on Chicago future contracts, adjusted for premiums or discounts, rather than the quotations of a particular grade of wheat. These prices as so compiled are termed "basic cash prices," since they apply to the spot wheat which is the effective basis of future contracts. They are considered to be particularly adapted to the special requirements of an analysis of relations between prices of United States cash wheats and of Chicago futures, and also to the comparison of those cash prices which are closely tied, with those which are not closely tied to the future. Complete discussion is provided to show the method used in the compilation of these basic cash prices and to point out why they do constitute a representative wheat price series.

The relation and changes in relation between the price of cash wheat and the prices of futures during the period are presented graphically. This presentation shows the amount of premium or discount of the basic cash price relative to the dominant future and also the actual cash and future prices, thereby permitting an analysis not only of the relation of cash to the dominant future, but also of cash to all futures, and of one future with the other futures.

Examination was made of the bearing of storage costs on price relations. Certain years in the forepart of the period were selected for particular study because the provisions for payment of storage charges were such as to provide a fairly accurate estimate of the influence of storage costs, and of the extent to which the cash-future relations were under the influence of these costs and the extent to which they were under the influence of other factors. This particular analysis is given in detail, and although the results are not claimed to be generally representative, except as regards the character of the main influence effective in determining cash discounts, the authors consider that they provide a useful background for consideration of general tendencies shown throughout the period included in the study.

The main tendencies of cash future price relations are discussed under the head, "Seasonal and Related Tendencies," in which the two types of relations, designated as "discount" and "premium," are analyzed. Discounts of cash under old crop futures are considered as a reflection of varying effective costs of storage, which may be the full storage expense or greater or less than the latter. When the effective cost is negligibly small, the cash may rise above the future. Premiums of cash wheat over the future which usually are observed with respect to new crop futures are shown to be of complex character, depending chiefly on anticipated shortage of old crop supplies of wheat but partly on costs of storage.

The seasonal tendency in cash wheat prices is analyzed from the standpoint of the movements of cash prices relative to future prices. The "seasonal cycle" in cash prices as reflected thusly, is shown to indicate no uniform seasonal tendency and to represent in its upward and downward phases the influence of two correlated sets of forces. The cyclical effect is produced because these opposing price influences are effective at different times of the year. One set of forces is connected with surplus and is associated with an upward movement of cash prices relative to futures and usually operates during the interval between harvests, but may operate continuously over periods of several years. The other set operates only in a period about the time of harvest and then only if there is no excessive

carryover. While it may include a tendency for a reaction of a decline from an antecedent rise of cash prices relative to future, it usually involves a reaction from a condition of shortage that raised future prices quite as much as cash prices.

The appendix includes tables of the weekly basic cash wheat prices, prices of the four futures, and the spread between cash and futures, 1883-1934; monthly average prices of basic cash wheat prices, 1883-1934; and periods during which various classes and grades of wheat were basic to the Chicago future.

Anyone who is interested in price movements and cash future relationships will find this number of "Wheat Studies" to be very valuable, and in particular will be impressed with the care used in the establishment of the basic cash price series and the suggestions that the method of compilation offers.

R. W. Cox

University of Minnesota

World Agriculture and the Depression, by Vladimir P. Timoshenko. Ann Arbor: University of Michigan Business Studies, Vol. 5, No. 5. 1933. Pp. 123. \$1.00.

The author indicates that his purpose is "to show the position which agriculture has occupied in the creation and the development throughout the world of the present general economic depression" (p. 3). In this purpose, perhaps, is to be found the reason for some of the author's conclusions, for he appears to be more interested in finding in agriculture an initial cause of the depression than in finding contributing causes or in observing the effect of the depression upon agriculture. Nevertheless, the study is a valuable contribution to the literature concerning business fluctuations.

Chapter 1, discusses prices, production and stocks of certain agricultural products for the period 1923 to 1932. Declining prices, increasing production and increasing stocks are held to be proof of over-production. The author holds that the increased production was due largely to acreage expansion rather than to the bounty of nature.

Chapter 2 points out that the most important element in the growth of foreign trade during 1925 to 1929, was the trade between industrialized and agricultural countries. This trade was such that the balance of trade of agricultural countries became less and less favorable.

Chapter 3 indicates that foreign borrowings were of importance in international trade during the period of prosperity. This increased the burden of interest payments and endangered the balance of payments of agricultural countries both in Europe and overseas as early as 1928. A poor crop year in 1929-30 for many agricultural countries outside of Europe, resulted in serious financial difficulties and loss of confidence in their financial ability.

Chapter 5 indicates that the agricultural countries continued to have a debit balance of trade in 1930. Industrial countries increased the protection of their agriculture, thus narrowing the market for agricultural countries. Efforts of the latter to force their exports on this narrowed market resulted in a drastic price decline and a decline of purchasing power of agricultural

countries. This, in turn, is said to have caused a decline in the volume of manufactured goods.

It is with mixed feelings that I attempt to appraise Dr. Timoshenko's study. His approach is most highly commendable. The analysis of the world depression from the standpoint of individual commodities is very necessary and has too often been neglected. Furthermore, the approach from the standpoint of a study of the balance of trade and of payments between countries is highly essential to grasp the significance of the world-wide forces which were involved in the depression. Nevertheless, I find myself unable to agree with all his reasoning or with all his conclusions.

Perhaps the first question which should be raised is: Is it established that there was an overproduction of agricultural products prior to 1929? Dr. Timoshenko's evidence of overproduction is from his study of seven important agricultural commodities—wheat, cotton, sugar, wool, coffee, rubber and silk. For these commodities he has found that prior to 1929 prices declined, production increased, and stocks increased. In some cases the decline of prices was very moderate; in other cases it was a decline from what appears to have been a very high peak relative both to prices before and after that peak. However, Dr. Timoshenko's ultimate test of overproduction appears to be, "the early accumulation of stocks of agricultural commodities during the time when industrial prosperity was still developing" (p. 26). I do not think that this can, in fact, be held to be proof of overproduction. No attempt has been made to show that the labor and the natural resources devoted to producing these agricultural commodities could better have been devoted to the producing of some other commodities. Perhaps the increase of about 50 per cent in Dr. Timoshenko's combined stocks index between 1925 and the middle of 1929 was, all things considered, a desirable increase. Perhaps, on the other hand, stocks increased because prices had been held too high and consumption thereby decreased. Perhaps, even though there was a basic expansion of acreage and other means of production, the increased production due to this expansion may be said to have been absorbed, whereas the increase in stocks was only that resulting from a series of years of abnormally high yields, and might have been expected to have been reduced in later years of low yields. These are all possibilities which must arise in the mind of the critical reader.

Furthermore, it seems to the reviewer that Dr. Timoshenko places too much importance upon a small group of agricultural commodities and falls into error through his neglect of the price movements of other agricultural commodities and of non-agricultural commodities. To establish the fact of agricultural overproduction, it is of course, necessary to do more than discover a few cases of overproduction. It is to be expected that in the ebb and flow of our economic life there will be no time when there is not overproduction of some commodities—industrial and agricultural alike. I cannot conceive of any dynamic situation where it would not have been better if less of our labor and natural resources had been devoted to the production of certain commodities, and more of it devoted to the production of others. But Dr. Timoshenko apparently is of the opinion that agricultural production generally was overexpanded prior to 1929.

In the United States wholesale prices of agricultural commodities showed a general upward trend from the middle of 1921 to the end of 1924.

Although the index of farm product prices declined somewhat from early 1925 to early 1927 the general trend from 1925 to the middle of 1929 was approximately level. The index of non-agricultural prices, on the other hand, after rising for a period of about 18 months from the latter part of 1921 to early 1923, showed a very definite downward trend from early 1923 to the middle of 1929. Hence, the ratio of the wholesale prices of farm products to those of non-agricultural products had a very marked upward trend throughout the period extending from the beginning of 1921 to the middle of 1929.

Similarly, the ratios of the indexes of wholesale prices of farm products to indexes of all commodities for Canada and Australia show a distinct upward trend for the period 1923 to 1929. They do not show a downward trend from 1925 to 1929. For Great Britain the index of prices of foods (mostly agricultural commodities) rose steadily relative to the wholesale price index from 1923 to 1928 and was higher for the calendar year 1929 than for any of the previous eight years except 1927 and 1928. These movements in prices of agricultural products as a whole relative to non-agricultural products as a whole do not support the belief that there was any general overproduction of agricultural commodities relative to industrial prior to 1929.

Dr. Timoshenko stresses the idea that it was not the bounty of nature but rather an intentional expansion of the volume of agricultural output which brought about overproduction. Because of this, he says, industrial production was not stimulated, rather, "The price decline lessened the farmers' buying power without encouraging industrial activity to a corresponding degree by lowering costs, as it had usually done during the pre-war cycles" (p. 30). It should be observed that the increase in agricultural production was due only in part to intentional expansion. For example, for the world as a whole, 1924-25 was a year of unusually low wheat yields, whereas in 1927-28 and 1928-29 yields were unusually high.

But even if all the increase of production had been intentional, what difference does this make in the power of agriculture to buy industrial goods? It is the total purchasing power of agriculture for all industrial goods, not merely for consumption goods which affects the amount agriculture buys from other industries. Industry can get along just as well if agriculture buys tractors rather than automobiles, barbed wire instead of bathroom fixtures, or milking machines in the place of radios. The real significance of this distinction appears to lie in its bearing upon credit expansion and upon the necessity and difficulty of industry shifting from one line of production to another. If the expansion of agricultural production was accomplished by an initial outlay of capital and financed by borrowing during the early part of the period, then, as the expansion ceased it would involve a shift from the producing of capital goods for agriculture to the producing of either capital or consumption goods for non-agricultural groups. Insofar as the capital outlays for increasing agricultural production did not involve borrowing, on the other hand, the required shift of industrial production following the reduction of the outlay would be from the producing of capital goods for agriculture to the producing of consumption goods for agriculture.

If Dr. Timoshenko is correct in holding that, "when prices are lowered by the overexpansion of production . . . an agricultural crisis occurs,"

the question may well be asked whether there is no way under our economic system in which an intentional expansion of agriculture can be stopped without causing a depression. The ordinary course of events, according to traditional economic theory, would seem to be that if certain commodities are being produced in too large an amount, their prices will decline, and after a time with prices low and stocks accumulating, producers will begin to reduce their output. The effort formerly devoted to the production of these commodities will be shifted to others and the overproduction will be cured. What economic theory does not usually deal with is the difficulties which are to be met in making the readjustments. Price rigidities and the friction of the movement of economic factors are all too likely to result in a reduction in the total output of a country rather than in merely a shift of production. These aspects of the causes of the depression I have dealt with at some length elsewhere.¹

In Chapters 2 and 3, which deal with foreign trade and the balance of payments, an attempt is made to show that agricultural countries were importing from industrial countries beyond their means to pay in exports. It is to be noted that the United States is classed among the industrial countries and not among the agricultural. From 1924 to 1929 the value of the exports of the countries classed as industrial increased more rapidly than did the value of their imports. Similarly, the value of the imports into agricultural countries increased more rapidly than did the value of exports from the agricultural countries. This was due to the more rapid increase in the quantity of industrial products entering into foreign trade than in the quantity of agricultural products entering into foreign trade. Prices of the industrial products and agricultural products moving in international trade, of course, fluctuate from year to year, but through the period 1924 to 1929 their declines were apparently about equal. This is indicated by the price indexes of exports and imports for seven European countries and for twelve agricultural countries outside Europe. The fact that the value of merchandise imports of the agricultural countries grew more rapidly than the value of merchandise exports indicates, of course, that the agricultural countries must have been making up the difference in some other way, and Dr. Timoshenko shows that this difference was accounted for by the agricultural countries borrowing from those countries which he classes as industrial (including the United States). He points out that the interest burden of twelve agricultural countries was about three times as large as Germany's reparations payments, yet that these agricultural countries have generally been left out of account in discussions concerning the difficulty which various countries were having in meeting their balance of payments.

This point is well taken, yet Dr. Timoshenko neglects to consider the distinction between the payments on international loans which have been made in connection with increasing the capital equipment of new countries and payments on reparations and on loans which have been made to rehabilitate war-torn countries. Though he has done well to call attention to the importance of the interest burdens of agricultural countries, he has failed to demonstrate, or even definitely consider the question of whether the loans to the agricultural countries could not have been repaid, pro-

¹ *Production and Demand: Contrasts between Agriculture and Other Industries*, Chapter XI, in *Stabilization of Employment*, edited by C. F. Roos, Principia Press, Bloomington, Ind., 1933.

viding those countries were given appropriate time to make readjustments, instead of having their supply of credit suddenly curtailed in the middle of 1929. There is reason to hold that most of the agricultural countries would ultimately have been solvent had it not been for the intervening depression, whereas such was not the case with Germany.

Despite the attention which he pays to the international trade situation and the balance of payments, Dr. Timoshenko misses the opportunity to point out that debtor *industrial* countries were under the necessity of reducing their imports relative to their exports. Failing sufficiently to expand their exports, they directed their efforts to a reduction of their imports and this reacted upon the debtor agricultural countries, as well as upon the great agricultural-industrial creditor country, the United States. In the opinion of the reviewer, the international trade situation was of greatest importance in causing the world-wide depression, and among the countries which experienced extreme difficulty in meeting their international obligations were the debtor agricultural countries. These countries, however, did not meet with serious difficulty until 1929, and their plight was basically due to the difficulty which certain European debtor countries (industrial and agricultural alike) had been experiencing for years—that is, it was due to the heritage of the world war. Had it not been for the burden of debts and reparations which the war placed upon European countries, and had it not been for the tremendous speculative boom in the United States and abroad during 1928 and 1929, the debtor agricultural countries probably would not have met with any extraordinary difficulties in meeting their international obligations. Similarly, had it not been for the policy of the United States demanding repayment of loans from European countries and yet, through its tariff policy, refusing to take payment in goods, the causes of the depression would have been greatly alleviated and the depression might have been less severe.

Dr. Timoshenko's study deserves the careful attention of all serious students of business fluctuations. He has done a real service in pointing out the difficulties with which agricultural countries were faced in meeting their international obligations, and how these difficulties may have contributed to the development of the depression. Although there may be differences of opinion as to just what are the causal interrelations involved, we must all agree that, "The mutual interaction between agriculture and industry, not primarily in one country, but in the world as a whole, . . . must be studied if we are to understand the unusual character of and extent of the present world-wide economic depression." Dr. Timoshenko's study constitutes a valuable aid to such an understanding.

E. J. Working

Bureau of Agricultural Economics

Introduction to Rural Sociology by Charles R. Hoffer. New York: Farrar and Rinehart, Inc. 1934. Pp. XIV, 500. \$3.00.

This treatise which the author hopes will be "of interest to the general reader and also useful as a text" is set against several approaches to the subject. One of these is the "so-called formal approach" of Hawthorne who "used the term 'socialization' as the key to unlock the treasure house of sociological information about rural life." Another is the method of

comparing rural life with urban;—exemplified by Sorokin and Zimmerman in *Principles of Rural-Urban Sociology*. A third, indicated by the chapter titles of the books as in *Rural Sociology* by Taylor and again by Hayes, considers the problems of rural life not in a "framework of formal categories, but rather by using terms more or less in current language and thought of sociologists and of rural people as well."

The author pursues the last of these methods, except for the omission of certain chapter headings such as "land policies, farm management, and others which have appeared in some rural sociology texts." He describes the content of his book as an attempt to set forth facts of sociological significance and the sociological principles pertaining to rural life that seem to have general application. As in the first edition he presents a well arranged and compact treatment of the essential facts pertaining to the sociological side of rural life. The careful reader may question the classification of certain chapter headings, however; for example, recreational activities, health, and rural standard of living are listed as rural social institutions.

The inclusion of three new chapters—rural children, rural youth, and rural leaders—adds to the timeliness and readability of the book. Other chapters have been amplified or "completely rewritten." The new and completely rewritten chapters surpass the other in up-to-dateness and interest. The chapters on rural youth, rural social organization, and town-country relationships are fresh and provocative. That on the rural standard of living might have been further improved by the inclusion of recent data and a clarification of terms and definitions. With respect to elements in the standard, it is questionable whether "The first is cost." Are cost and efficiency elements of, or considerations with respect to, standards of living? Would more recent data show as marked differences in prevailing standards for owners and tenants as those pointed out on page 371? Possible evidences of trends in rural life are lacking in several chapters. This applies to the rural church, and to villages and towns particularly.

The author avoids or escapes burdening the reader with an excessive sociological vocabulary; to the extent that the student of sociology may possibly be the loser. Study questions and reading lists at the ends of chapters are stimulating and helpful. The reviewer is left to wonder, however, if a few well-directed questions in the text would have added to the "movement" of the book. He felt the task of reading "dragging" occasionally due to the omission of introductory and summary paragraphs for the separate sections and chapters; for example, chapters VIII, X and XIII are in need of having "the ends tucked in," in some such way as is done for the rural church on page 233. On the other hand, a chapter is over-summarized occasionally, for example chapter IX on farm labor.

The book covers the field well and moves along smoothly for the lay reader and the general student. It is well adapted for and should have a wide use in the smaller colleges and teacher-training institutions. It fills the need nicely in this respect. Fortunately it leaves another opportunity for its author or some other writer. To the specialist in sociology as well as the rural social administrator it exhibits a certain lack of vigor and penetration. With this and other similar treatises as a background there is evident need now for a more forceful and more pointed presentation of the facts and other findings which are being rapidly accumulated in

rural sociology. The results of studies and investigations need to be quickly and effectively summarized, interpreted and evaluated for use by keen students of rural affairs and the many busy planners for national life in its relation to rural life.

E. L. Kirkpatrick

University of Wisconsin

NEWS ITEMS

The twenty-sixth annual meeting of the American Farm Economic Association will be held December 27-30, 1935 at New York City. Headquarters of the Association will be at the Commodore Hotel.

Marketing Research Division Organized

Research in marketing in the Bureau of Agricultural Economics will be brought together in a new Division of Marketing Research with Dr. Frederick V. Waugh in charge. Dr. Waugh will give particular attention to the newer problems in marketing, and cooperate with the other divisions in general marketing research the present projects of which continue. Besides Dr. Waugh the staff consists of Mr. S. R. Newell, transferred from the Division of Crop and Livestock Estimates, Mr. A. C. Hoffman, transferred from the Agricultural Adjustment Administration, Mr. R. O. Been, transferred from the Division of Crop and Livestock Estimates, and Mr. E. L. Burtis, recently from the University of Chicago.

The Universal Cotton Standard Conference originally scheduled for March of this year will convene at Washington, D. C., instead in March 1936.

AAA and NRA Hearings Now Available

Transcripts of the hearings held under the AAA and NRA have been made by the Joint Committee on Materials for Research of the American Council of Learned Societies and the Social Science Research Council in film form and are available to research institutions at cost.

The AAA materials comprise 136,000 documents which include the stenographic reports of the hearings on the marketing agreements, codes, licenses, and processing tax matters and copies of data submitted in support of testimony prior to and subsequent to the hearings in the form of letters, telegrams, petitions, case studies, charts, statistical tables, pamphlets, books, etc. Transcripts of the stenographic reports above are procurable from the official reporters of the AAA. The additional materials are significant. The 58 volumes of 100 feet of film each occupy only a little more than one cubic foot of space. The film copies are more convenient to use than the material in the original form and quite as legible. The matter has been arranged into dockets (240) numbered and indexed. A projector for reading the film is needed, but standard machines may be rented if purchase is not warranted.

The hearings on the codes of fair competition held under the NIRA make 68 volumes of 100 feet of film each, about 150,000 pages copied from originals deposited at the Code Record Section of NRA. The films do not contain the inaccessible confidential data known as A and B materials, but do include the complete transcripts of the hearings made by the official reporters, with all data submitted in support of testimony at the hearings.

In connection with the attractiveness of the film form it is noted that the NRA hearings in hectograph would cost \$3,000, whereas the film set may be had for about \$200, and the films are compact and relatively permanent, 16 mm safety film having been used.

Further information about the sets and the terms may be obtained

from Prof. T. R. Schellenberg, Executive Secretary, Western Reserve University, Cleveland, Ohio.

Baron Giacomo Acerbo, of the Ministry of Agriculture of Italy, has been appointed Italian delegate to the Permanent Committee of the International Institute of Agriculture at Rome, in place of Prince Ludovico Spada Potenziana.

Mr. J. B. Andrews who has been serving as fieldman with the Illinois Farm Bureau-Farm Management Service has been transferred to the position of extension specialist in the Department of Agricultural Economics. W. A. Herrington is returning to the Farm Bureau-Farm Management Service in the position vacated by Mr. Andrews. Mr. Herrington was formerly with this Service but for the past three years had been farm adviser in McHenry County, Illinois.

Dr. A. G. Black, recently in charge of the Corn-Hog section of the Agricultural Adjustment Administration, has been appointed Chief of the Bureau of Agricultural Economics.

Dr. A. Bridges, of Oxford University, has been engaged in a study of the possible developments of the farm accountancy work of the International Institute of Agriculture, at Rome, Italy.

Mr. Ralph Clifford, assistant in the Department of Agricultural Economics, University of Illinois has accepted a temporary appointment with the United States Department of Agriculture, Bureau of Agricultural Economics.

Mr. J. B. Davis, formerly of the University of Kentucky and recently with the Brookings Institution, has received an appointment in the Tobacco Section of the Agricultural Adjustment Administration.

Mr. Floyd DeLashmuth has been appointed Extension Economist in the Department of Rural Economics, Ohio State University.

Mr. E. E. Edwards, of the Division of Statistical and Historical Research, Bureau of Agricultural Economics has been appointed to the Advisory Board for the Columbia University Studies in the History of American Agriculture.

Mr. Virgil Gilman, formerly extension economist at Montana State College and recently with the Brookings Institution, has been appointed agricultural economist in the Land Policy Section of the U. S. Department of Agriculture.

Mr. H. P. Hanson, formerly land planning consultant in Minnesota for the National Resources Board, is now with the Land Policy Section of the AAA, stationed at Madison, Wisconsin.

Mr. Charles L. Luedtke, Assistant Agricultural Commissioner at Buenos Aires, Argentina, since November 1930, has returned to the Foreign Agricultural Service Division, Bureau of Agricultural Economics, Washington, D. C. On his way home he stopped over in Peru to study cotton production in that country.

Mr. Alan MacLeod, formerly of the University of Minnesota, is now doing graduate work at Harvard. When this work is completed he will return to his position at the Brookings Institution.

Mr. B. L. McNabb has been appointed assistant in Agricultural Economics, University of Illinois to fill the position vacated by Mr. L. J.

Coolidge who accepted a position with the Soil Erosion Service in the Illinois Area.

Dr. William Murray of the Iowa State College is teaching courses in farm finance and land economics at the University of Minnesota during the spring quarter.

Dr. L. J. Norton resigned his position in the Department of Agricultural Economics at the University of Illinois to accept a position as Vice President of the Production Credit Corporation, St. Louis, Missouri. Dr. Norton, while at the University of Illinois, worked primarily in the field of farm prices and statistics.

Mr. Nils A. Olsen, Chief of the Bureau of Agricultural Economics since July, 1928, resigned effective April 15, to become head of the farm investment department of the Equitable Life Insurance Company, of New York, N. Y.

Mr. George W. Russell, ("A E") Irish leader, for 25 years secretary of the Irish Agricultural Organisation Society, has been visiting the United States lecturing to groups interested in the cooperative movement.

Prof. Sam Thompson has returned to his work at the Iowa State College after spending the fall and winter quarters at the University of Minnesota taking graduate work.

Mr. Gerald B. Thorne has been placed in charge of the Corn-Hog section of the Agricultural Adjustment Administration, succeeding Dr. A. G. Black.

Dr. J. E. Turlington, Professor of Agricultural Economics at the University of Florida, died on November 2, 1934, after an illness of several months. Dr. Turlington received his Ph.D from Cornell in 1912. From 1912 to 1916, he was associated with the University of Georgia and Cranen County Farm Life School. In 1916 he accepted the position of Professor of Agronomy at the University of Florida. In 1925 he became the head of the newly organized Department of Agricultural Economics in the teaching division of the college, which position he held until his death. The first research in Agricultural Economics by the college was under his direction as was the first work in Agricultural Economics Extension.

Dr. Victor N. Valgren, until recently with the Division of Agricultural Finance, Bureau of Agricultural Economics, is now in charge of the insurance work of the cooperative division of the Farm Credit Administration.

Dr. V. R. Wertz who has been in the employ of the Farm Credit Administration since August, 1934, returned to his duties in the Department of Rural Economics of the Ohio State University on April 1, 1935.

Dr. Janet L. Weston, for three years engaged in the study of farm tax problems in the Division of Agricultural Finance, Bureau of Agricultural Economics, is now an instructor of economics at the University of Illinois.

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